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ABSTRACT

To provide a personalized curriculum and to test certain hypotheses concerning vocational students, the Hudson School System has been operating an experimental vocational education project. This 4-year project has now been absorbed into the regular school program and has been extended to a cooperative vocational education program with neighboring schools. Questionnaire data indicate much progress was made in achieving stated objectives although the inter-group relationships and status of the vocational students did not show the desired improvements. The evaluation, however, did show a greater increase in self-concept among vocational girls than boys, and a generally more positive reaction to school from all vocational students in this highly college-oriented community. The great majority who took part in vocational training felt that it had prepared them well for work. Based on the findings of this study it is recommended that strong effort be made to provide programs which encourage enthusiasm for learning. (Author/JS)

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EXPERIMENTAL AND DEVELOPMENTAL STUDY OF A FOUR YEAR COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM

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June 1970

U. S. DEPARTMENT OF
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EXPERIMENTAL AND DEVELOPMENTAL STUDY OF A FOUR YEAR COMPREHENSIVE VOCATIONAL EDUCATION PROGRAM

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ABSTRACT OF THE STUDY

The school system of Hudson, Ohio has been operating an experimental project titled "A Four Year Comprehensive Vocational Education Program" since September of 1965. Funding by the U.S. Office of Education, Bureau of Research, partially supported the innovation of the program, the four year experimental phase and a follow-up study completed in 1970. The program has now been absorbed into the regular program of the Hudson Schools and has been extended to a cooperative vocational education plan with six neighboring schools.

Evaluation of the total Hudson High School program in 1964 suggested a need for a more functional, work oriented program for the students not planning on college.

The objectives and hypotheses proposed as the program began in 1965 are as follows:

Objectives:

1. To provide a practical, flexible, personalized curriculum for the students not planning to go on to college.

2. To develop techniques, materials which would contribute to a motivating classroom environment.

3. To provide the opportunities for success through a non-graded evaluation system.

4. To provide exploratory experiences during ninth and tenth grades toward more realistic and informed choices for occupational training and job placement.

5. To include in the guidance concept every person coming in contact with the student (teacher, counselor, parent, potential employer).

6. To develop in both students and faculty a feeling of the importance of the individual, and of the benefits of good communication between groups.

7. To help students to view their education as a preparation for personal as well as economic adequacy.

Hypotheses:

1. That vocational and college preparatory students have significantly different attitudes toward themselves, toward school and toward the world of work.

2. That, as a result of the Vocational Program, vocational students will show significant attitude change and improvement in basic skills.

3. That the students' achievement and aptitude, rather than social considerations, will be the basis for choosing the college preparatory, vocational or mixed curriculum.

4. That this program will be of benefit to both school and local industry.

5. That this program will enable the student to continue his education or gain suitable employment upon graduation.

The methods used to gather data were a series of questionnaires administered annually to a large group of students, personal interviews with a random sample of students, discussions with parents, faculty, employers and other community representatives.

Much progress was made in achieving the objectives, although the inter group relationships and status of the vocational students did not show the improvements desired.

The researchers discovered more increase in self concept among vocational girls than boys, but a generally more positive reaction to school from all vocational students. This included a more relaxed relationship with teachers, a feeling of relevance and future usefulness in the materials presented, and approval of the grading system.

Because of the time involved in administering the attitude inventories, no standardized ability tests (except those regularly administered by the school) were used. The general findings show evidence of slightly above average intelligence for the vocational students and achievement well below average. The hypotheses on attitude change and improvement in skills is supported by non-test data.

Although the community of Hudson is highly college-oriented, the vocational program has been well accepted and supported. The success of employment placements under the school program has been outstanding.

The effort toward a cooperative vocational program among neighboring schools was initiated by Hudson in 1967 and has now been approved as a continuing offering.

The Follow-Up Study drew many valuable comments from Hudson graduates concerning the program. The great majority who took part in vocational training felt that it had prepared them well for work. Many college preparatory students wished that the vocational skill training could be available to all students in high school. This suggests a broadening of the

introductory courses for eighth, ninth and tenth grades so that all students may be exposed to the vocational possibilities.

Strong effort should be made to provide programs which encourage enthusiasm for learning, an understanding of the future value to all society of appropriate learning at the high school level.

TABLE OF CONTENTS

ABSTRACT OF THE STUDY i

Chapters

I. PREFACE 1

Background and Statement of the Problem
Acknowledgements

II. PLANNING THE PROGRAM 6

Preliminary Action
Vocational Curriculum
Statement of Objectives
Development of Hypotheses
Evaluation

III. OPERATION OF THE PROGRAM WITH ANNUAL EVALUATION 26

IV. RESEARCH RESULTS 40

Introduction
Hypotheses Related to Data
Case Studies

V. RECOMMENDATIONS AND CONCLUSIONS 57

Planning and Operation
Recommendations
Conclusion

Appendixes

A. CURRICULUM 62

Introduction
English 63
Family Living 80
Vocational Information 85
World of Work Program 96
Child Care Training 108

B. RESEARCH METHODOLOGY 116

Test Data
Non-Test Data
Bibliography

C. LIST OF TABLES 124

Table A-1
Table A-2
Table A-3
Table A-4
Table A-5
Table A-6
Table A-7
Table A-8
Table A-9
Table A-10

D. LIST OF QUESTIONNAIRES 145

E. FOLLOW-UP STUDY OF GRADUATES OF HUDSON HIGH SCHOOL: CLASSES 1965 THROUGH 1969 151

Questionnaire
Report of Follow-Up Study
Conclusions
Tables
1. Numerical Distribution of Responses
2. Relation of Pre-Graduation Plans to Actual Activity

F. REVISED EVALUATION CARD 170

G. STAFF OF THE HUDSON PROGRAM - 1965 THROUGH 1969 171

CHAPTER I

PREFACE

Background and Statement Of The Problem

In 1965 an experimental project titled "A Four Year Comprehensive Vocational Program" was begun in a small high school in Hudson, Ohio. A grant from the U. S. Office of Education, awarded under provisions of the Vocational Education Act of 1963, has supported part of the cost of this program. This report constitutes the final evaluation of the research phase, but the program continues to operate as an established part of the Junior and Senior High School curriculum of the Hudson Local School District.

It is difficult to pinpoint the exact date on which members of the Hudson staff began to express concern over weaknesses in the general curriculum. Actually the time makes little difference, and the important facts relate to the various influences and persons bringing about change.

It is important, first, to visualize the geographical, economic and social background upon which the educational picture is to be superimposed. Because of Hudson's similarity to many other American communities, the accomplishment of this very practical educational experiment may have valuable contributions for other schools.

Founded as the Western Reserve by a group of Connecticut pioneers in 1799, Hudson has maintained its unique New England atmosphere to the present day. Architectural controls have kept the colonial design predominant, and the village presents a picture of suburban charm and affluence.

The original Western Reserve College (now Case-Western Reserve University), was founded in Hudson in 1830, and it's buildings now house Western Reserve Academy, an old and renowned private boarding school for boys. The presence of this school has had an effect on the public schools in several ways. The number of Hudson boys admitted each year as "day students" has been limited to ten or twelve. Therefore, parents have worked for a comparable education in the public schools. The Academy faculty have added to these demands for excellence of instruction for their children in the Hudson Public Schools.

The nature of the Village of Hudson and its proximity to both Cleveland and Akron businesses, have drawn a population of professional people, executives in rubber, automotive and steel industries, and others wanting to get away from urban areas for the sake of their families. It is only natural that such a population has placed a high priority on quality education. The result has been a steadily improving college preparatory program, since this was the demand and evident need of the majority.

As the community has grown and industries have built plants within or near Hudson, the overall nature of the population has changed. The township and the village itself includes many industrial and blue collar workers who have relocated to take advantage of the job possibilities in the area. In many cases, the children of these families are not college oriented, and desire an education including job preparation of some kind.

Prior to 1965 the curriculum at Hudson High School provided a strong college preparatory program and an alternate general course which included the required academics and Industrial Arts and Homemaking. There was no deliberate attempt at job preparation although the good training in the Machine and Wood Shops did lead to post-high school jobs for some graduates.

Many different threads of thought and activity were gradually woven into a tangible fabric of community, faculty student concern. Explanation of some of these contributing factors should preface the actual development of the program.

1. <u>The Follow-up Study</u>

Under the direction of the Hudson High School Guidance Department, each graduating class from 1960 to 1964 was surveyed to determine post high school plans and subsequent accomplishments. The data from this survey showed the following:

Post H.S. Voc. Tr.	Class	Job	% to College	Completing 1 Yr.	2 Yrs.	3 Yrs.	Grad.
6	1960 (91)	10	59.39 (54)	50	46	41	28
2	1961 (88)	24	60.22 (53)	49	42	41	32
4	1962 (84)	24	55.95 (47)	42	41	39	--
5	1963 (82)	13	65.85 (54)	45	--	--	--
7	1964 (104)	9	79.80 (83)	--	--	--	--

Although the follow-up data were not tabulated beyond 1964, the statistics revealed several tendencies:

(a) The percentage of students choosing the college preparatory curriculum rather than the general course rose markedly in 1963 and 1964.

(b) The attrition rate of college entrants in 1960 was almost 50% by senior year; nearly 40% in the 1961 class. Beyond that point data are not complete enough to be reliable.

(c) There seemed a drop-off in employability as college preparatory training increased in 1964, but little change was noted in post high school vocational training.

2. Records of Conferences With Students and Teachers

Evident needs, for courses and programs for students ending their formal education with high school were being expressed.

Requests were made to transfer to trade training programs outside the school.

Teachers were feeling a gap in total educational offerings, and searching for new methods and materials to use with "unmotivated", "disinterested", "non-academic" students.

Although the drop-out rate was not high, those who were leaving school felt that the general program was inappropriate to their needs.

3. Student Questionnaire

As discussion among students and faculty progressed, a tentative survey of student choices of training subjects was made.

Of the 148 students surveyed (9th and 10th graders):

69 were planning to attend college.
79 did not plan to attend college.
137 expressed a desire for some vocational training.

The vocations listed in order of preferences were:

1. Personal Secretary
2. Auto Mechanics
3. Cosmetology
4. Receptionist
5. Child Care
6. Machine Shop Training
7. Service Station Training
8. Typist
9. Auto Body Repair
10. Commercial Art
11. Horticulture
12. Hospital Services
13. Interior Decorating
14. Photography
15. Appliance - Radio & T.V. Sales & Service
16. Merchandising & Retail Sales
17. Switchborad Operator
18. Practical Nursing
19. Carpentry
20. Drafting
21. Electricity
22. Graphic Arts
23. Chef & Restaurant Training
24. Filing Clerk
25. Meat Cutting & Processing
26. Hotel Services
27. Data Processing
28. Plumbing
29. Exterior Decorating
30. Custodial & Service Work

4. Survey of Employment Possibilities in the Hudson Area

As a research project resulting in a masters' thesis, a study of potential job opportunities for slow learners was completed in 1963 by

a Hudson faculty member.[1] This project was conducted through personal interviews with eighty-eight (88) employers representing twenty-four (24) occupational titles. The results of this research included many conclusions which were applicable to the training, attitudes, academic requirements and prevailing opportunities for all teen-age workers.

A major contribution of this study was the varied contacts established with business men in the local and neighboring communities which could be utilized at a later date.

One of the important findings of the research was the emphasis on good work attitudes and personal characteristics as prerequisite to employment success. Most employers felt that specific skill training was best handled by the employing industry, but that the in-school skill training could be well used as a motivator and media for developing good work habits which would be applicable to any job.

The rating of skills discussed with the employers was in this order:

1. Ability to follow directions.
2. Oral communication.
3. Ability to read and understand instructions.
4. Handling and care of tools and equipment.

The rating of the personal characteristics was as follows:

1. Reliability (including punctuality and attendance).
2. Ability to work with other people.
3. Appearance.

Most employers felt that weakness in personality characteristics would be a deciding factor in employability, in spite of the level of attainment in skills. It was their recommendation that some specific training in attitude development be built into any program preparing young people for employment.

To young people who have not been placed in an environment or situation demanding these characteristics, reliability, cooperation and initiative are abstractions. They cannot be taught in a vacuum, and must be presented in fairly realistic terms.

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1. Pace, Mary P.: A Study of Job Opportunities in Summit County, Ohio, For Youth Classified as Slow Learners. Unpublished thesis: Kent State University,1963

The matter of appearance presents an especially difficult problem, as suitable appearance and dress for one job may be quite inappropriate to another. Certain basic rules can be established, as well as some understanding of differences of taste between generations.

The data collected for this study, and the job locations surveyed have been valuable in the development of the vocational program.

Acknowledgements

Although the development of the Vocational Program has been and still is, the cooperative effort of many people, a few of them must receive special mention.

Much of the credit for the original thinking and definition of the need for change goes to Mr. Lloyd Benham, principal of Hudson High School from 1956 to 1968, and to two (2) members of the Guidance Department of the school, Mr. John Cochran and Mr. George Rosselot.

These men inspired others on the staff to join their efforts in creating the basic structure of a new program, and called on the professional advice of resource people from the Ohio State University, Kent State University, the Ohio State Vocational Office, industrial executives and potential employers in the community, and many other local citizens.

Dr. Charles Nichols, Chairman of the Department of Vocational Education at Kent State University has assisted the school staff in matters of program and personnel since the beginning. Two members of his staff, Mr. Charles Turman and Mr. Robert Andreyka have served Hudson as advisors and teacher-educators in the approved Vocational units.

Two (2) members of the staff at the Ohio State University, Dr. Herman Peters and Mr. John Cochran, have directed the research phase of the project from 1965 through 1969. Mr. Cochran left the Hudson system to pursue his doctoral work at Ohio State just as the program was in its transition from planning to active operation.

Many other persons have contributed immeasurably to the innovations, growth, and success of the program. The teachers and administrative staff are listed in the Appendix, Section G.

The many companies and individuals who have contributed equipment, facilities, speakers and job opportunities have been acknowledged individually during the course of the program. Especially noteworthy are the contributions of the large automotive manufacturers - Ford, General Motors, and Chrysler Corporation - to the school unit.

CHAPTER II

PLANNING THE PROGRAM

Preliminary Action

A re-evaluation of the total Hudson High School program resulted in an informal proposal for vocational curriculum in early 1965. The main focus of this first tangible effort was the 35% of students not planning to attend college. As explained in the Preface, the general program offered as an alternate to the College Preparatory Course was not functional or motivating for the student whose goal was employability upon high school graduation.

A survey of I.Q. scores of the students enrolled in Hudson High School during 1964-65 revealed that 203 of the 529 total tested at less than the 110 I.Q. generally considered the college achievement minimum. This supported the conviction that revision of offerings was needed, as well as more realistic guidance in establishing educational goals.

The proposal suggested courses in salable occupational skills, and the inclusion of practical, applicable and timely materials in the required academic courses. Exposure to facts about the world of work, first hand observation of and even experience in a variety of work skills was suggested.

It is interesting to look back at the questions written down so tentatively before the program was launched, and realize how effectively they suggested the guidelines and criteria adopted for the program.

1. Will this program continue to teach the students to read, write, compute, and listen?

2. Will this program prepare the student for a contributing and satisfying role in society?

3. Will this program provide flexibility in our total educational program?

4. Will this program help the individual to adjust successfully to environment?

5. Will this program give each non-college preparatory student training and experience in at least one occupational field?

The program has been designed with full consideration given to the following criteria. It must:

1. Continue basic courses at all levels.

2. Provide exploratory occupational experiences.

3. Give opportunity for study in areas of individual interests.

4. Provide adequate counseling and evaluative opportunities to help students understand themselves.

5. Provide thorough instruction in the fields of interest selected by the student.

6. Provide on-the-job work experience.

7. Meet state and local requirements for graduation.

8. Permit students to select college preparatory courses if they desire.

The program as listed on the next few pages will give a more complete picture of the orientation aspects for grades nine and ten, with special training and work experience offered in grades eleven and twelve.

The freshman year of high school for these students includes an exploratory year during which each student is exposed to four different areas of the Vocational Program in addition to the required basic courses of English, reading, mathematics, science, occupational information, and physical education.

In the sophomore year, students are introduced to additional skills in the vocational laboratories, to awaken interests and guide toward realistic choices for the last two years of high school.

The junior and senior years are devoted to completing the academic requirements for graduation, and to specific occupational instruction and some work experience.

Adjustments have been made in specific courses, in work-experience requirements and in range of vocational offerings during the experimental years. These have been brought about by student requests, changes in school facilities, and on community and employer recommendations.

The curriculum outline shows that academic requirements are basically the same as for most high school programs, though some courses are scheduled a year earlier than usual, to allow more flexibility and blocks of time in the final two years. All courses which have been offered during the four year experimental phase appear in the curriculum, although they may not be given every year.

As the program has developed, few students were placed on out-of-school jobs before senior year. No rule has been established, but the administration decided each individual request on its own merits.

Any student may select courses in the college preparatory curriculum in addition to those undertaken in the vocational program, and this bridging of track divisions is encouraged.

VOCATIONAL CURRICULUM

Grade Nine

Required Courses:

English
Life Science
Mathematics - General or Algebra I
Developmental Reading (one semester)
Occupational Information (one semester) (This has been eliminated. See World of Work, Appendix A)

Physical Education

Introductory Courses:

Classes meet two (2) periods a day for nine (9) week periods.

Girls	Boys
Practical Home Arts	Practical Home Arts
Home Economics I	Building Materials
Bookkeeping, Shorthand, Typing, Office Machines	Electricity & Drafting
Cosmetology	Graphic Arts
	Machine Shop

Grade Ten

Required Courses:

English
American History
Physical Education & Driver Training
Occupational Psychology

Introductory Courses:

A student is given short introductory courses in some of the following subjects:

Home Economics II	Electricity
Auto Mechanics & Service	Graphic Arts
Building Materials	Machine Shop
Cosmetology	

Note: Outlines of selected courses particularly adapted for the vocational students are given in Appendix A, p

Grade Eleven

Required Courses:

English
Living in Society (one semester)
Physical Education

Choice of Vocational Units:

Automotive Mechanics
Child Care
Cosmetology
Printing
Business Education

Grade Twelve

Required Courses:

Survey of Literature (one semester)
Senior Mathematics (one semester)
Unit or Work Experience

Note: Business Education, by nature of course structure and student demand, is not adjustable to the short introductory courses. Many vocational students choose this department for their area of training.

One of the strong points of the early plan was the proposed introductory course covering a variety of skill areas for 9th and 10th graders. Comments on this, and how the structure of these offerings has been altered year by year, will reoccur throughout the report. The wisdom of this orientation and broad basis for informed choice, is supported by student and faculty comments.

The pattern of two years of experimentation leading to choice of concentrated occupational skill instruction in 11th and 12th grade, was supplemented by flexible possibilities of cooperative work experience in the final two years. A combination of college preparatory and occupational training, and some electives in occupational psychology, sociology and career guidance.

In the early planning, very few specific changes were made in existing courses, although this was considered vital to the effectiveness of the total experiment. We knew that the basic academic requirements must be

met within the framework of the new curriculum and that the existing courses were not adequately meeting the needs of the students in question.

Like so many other small suburban high schools, Hudson offered a rather limited program for its students. They could choose from a college preparatory program and a general course of study. For those with serious intentions toward college and the ability to match, the college preparatory curriculum was ideal, offering superior teaching in a wide range of subjects. For those students for whom college was not a realistic goal, the general program led to no specific advanced learning. This was clearly a problem of curriculum, an obvious limitation to students of a school that considered itself a comprehensive high school.

Typically, most of the general students articulated their lack of direction by rejecting. They rejected classwork, school activities, teachers, and other students. Worst, they rejected themselves. This attitude of non-involvement carried beyond the classroom and beyond the academic curriculum. Clearly, a special kind of curriculum revision was necessary. The changes must affect not only the content and number of courses offered to the non-college bound; it must change their whole school experience.

The Guidance Department Follow-up Study of Hudson graduates done in 1964 indicated the direction for change. With sixty-five (65) percent of our graduates attending college and another seven (7) percent in specialized training, we were serving the majority of our students. But what of the twenty-eight (28) percent of those graduates of the past five years who had left school with no specialized skill and no interest in, or aptitude for, the college experience? What kinds of jobs were available in the Hudson area? What training would students need to qualify for those jobs? What personal qualities were employers most concerned that their workers have?

The answers to some of those questions were already known. The nature of the job study done by Mrs. Pace, who was later to become Hudson High School's Vocational Supervisor, made it pertinent to the needs of our general students.

Mrs. Pace found that a majority of employers in the area would hire unmotivated people who met the company's other requirements and that they would be willing to be listed as potential employers in a work study program. The largest majority of employers saw need for school training in skills and attitudes.

This job opportunities study also gave us pertinent information about the personal characteristics which would be desired or demanded by employers. Reliability and the ability to work with others far outranked other characteristics as necessary for employability. Appearance also ranked high, but the ability to work independently and physical strength were judged only one fifth as important as the most-name characteristics.

Teachers from most departments who had expressed a desire to be involved in the program developed the outline and substance of the new course of study. The group tried to include in all areas of instruction, the techniques, materials, and variety which would encourage disinterested youth to continue in school. The group tried to ignore the "practices of the past" so that new guidelines and fresh approaches could be given a try. Even at the beginning many teachers remained rigid and inflexible and progress and possible change were impeded.

One of the unique characteristics of the proposed pre-occupational program was its emphasis on developing constructive attitudes as well as technical skills. Hudson's Director of Guidance Services, George F. Rosselot, was the central figure in developing the guidance approach which has been a key to the success of the program. He provided background statistics, suggested goals, proposed research, and introduced to the faculty learning theories especially appropriate for this group of students.

The most radical changes, and eventually the greatest curricular growth seemed to come in English. Perhaps this was due to the personality, ingenuity and student rapport of the vocational staff members teaching this subject. But their enthusiasm and eventual successes in the classroom proved contagious and helpful to others.

The greatest "hang-up" in the planning sessions as well as subsequently in the classrooms was how to substitute flexibility, informality, student centered rather than subject centered approaches for the comfortable structure within which teachers traditionally operate. It takes a skillful teacher, adept at "manipulation" and quick change and possessing unlimited imagination to keep such a program controlled and productive.

Visits were made to nearby vocational and technical schools to observe their operation. It is important to remember that we were not concerned with just another trip to a machine shop or home economics room. We were looking for personal approaches to the unmotivated students in academic classes, for physical arrangements of technical areas, for evidence of a sense of direction in both students and teachers, for specific equipment and materials which had proven useful and meaningful. For evidence of successful teaching of high ability-low achievement students we went to the Educational Development Center in Berea, Ohio. The administrative groundwork had been done, guidance-centered goals had been developed and teachers had become involved. Innovation had begun.

The leaders of Hudson's venture into an experimental vocational program were especially concerned that the planning be done by the entire team. Already the high school principal and guidance director had directly involved the community, the school board, university representatives in guidance and vocational education, and some teachers. During the remaining weeks of the current school year a number of meetings were held

to exchange ideas and inspire creativity on the part of teachers. These meetings were the start of an organized pre-service training program, the bulk of which would be a two week training session in August.

During the early summer the research team was selected. Dr. Herman Peters, a professor of guidance at the Ohio State University, joined the group as consultant. Mr. John Cochran, just leaving Hudson for graduate work at Ohio State University, was his assistant. These two men continued with the program during the four year experimental phase. They helped with the early planning and suggested evaluative instruments and methods to insure continuing improvement. They both continued their jobs and studies in Columbus, and made periodic trips to Hudson for discussions with staff and students and parents and to help administer the questionnaires.

These notes from the above mentioned meetings show what a job we were attempting. They also reflect pragmatic attention to formally stated goals. For example:

> "One of the most important things from the very start of this program is the personal attention we can give these students that they have not received in past years. It is important that each of these students has personal attention from the staff, supervisors, guidance personnel and the coordinator."

> "What really happens to the pupils? There are three stages to consider: Start, Process, and End Result - Input, Process, Output."

> "Do these boys and girls reflect a new level of interest in school? There will, of course, be peaks and depressions. Watch the level of drive. If you are not interested, your drive dissipates itself."

> "Do we need new activities? Maybe we will want new clubs or new activities that these students might join."

"You have impact on youth. If you are a good teacher, you will cause conflict and turmoil. Sell your program. Don't be afraid of it."

"What do you expect? You ought to expect, and act as if you expect, success."

"A very important point is the need for trust. Can you create a new climate of trust? This would be a tremendous asset to the program if the students could trust learning."

"You must encourage young people. Studies have shown that only 3% to 5% of our time is spent on encouragement. If you had only that much encouragement, you would give up too."

In these in-service meetings teachers worked on ways to implement the advice, encouragement and challenge given them by the consultants.

The distance of the research team from the scene of action has been a drawback, as they did not see the development of the program on a continuum, but rather as reflected in the results of collected data. Their interpretations do not reflect the day to day living with the program, the success or failure of new techniques in the classroom, the changes in individual students. It is hoped that some of these will emerge in other segments of the report.

To involve the community, informal discussions had been held with individuals and the basis for varied business-school operation had been established. A deliberate information exchange was carried out with meetings during the spring and summer of 1965. A group of twenty-five (25) business people met in the school with the program planners, and help on job placements and advice has been continually available from many of these men. This early orientation of key people in the community was an important and productive phase of the planning.

During the late summer, when the courses and program structure and planned flexibility of student approach were ready for trial, the director presented an outline of these to some of the Hudson service groups.

News items in local papers confirmed the initiation of the program, and gave us much factual information as possible. As with most educational programs at this stage, trial and error was an accepted fact, and if the planners had anticipated some of the variables and pitfalls, they might not have set forth with such courage into the unknown.

Statement of Objectives

The evident need for curricular change and new direction began to be translated into stated objectives a year before the program was begun. The closer we came to the opening of school in 1965, the more we related the rather general objectives stated in the program proposal to the specific operation in class and laboratory. Our thinking crystallized during the summer in-service discussions so that we could state the following objectives:

1. To provide a practical, flexible, personalized curriculum for the students not planning to go on to college.

2. To develop techniques, materials which would contribute to a motivating classroom environment.

3. To provide the opportunities for success through a non-graded evaluation system.

4. To provide exploratory experiences during ninth and tenth grades toward more realistic and informed choices for occupational training and job placement.

5. To include in the guidance concept every person coming in contact with the student (teacher, counselor, parent, potential employer).

6. To develop in both students and faculty a feeling of the importance of the individual, and of the benefits of good communication between groups.

7. To help students to view their education as a preparation for personal as well as economic adequacy.

The extent to which these objectives have been approached or achieved is reflected in discussion of the program and curriculum in Chapter III.

Development of Hypotheses

From discussion and formulation of the objectives the research team who participated in the summer in-service work evolved five hypotheses:

1. That vocational and college preparatory students have significantly different attitudes toward themselves, toward school and toward the world of work.

2. That, as a result of the Vocational Program, vocational students will show significant attitude change and improvement in basic skills.

3. That the students' achievement and aptitude, rather than social considerations, will be the basis for choosing the college preparatory, vocational or mixed curriculum.

4. That this program will be of benefit to both school and local industry.

5. That this program will enable the student to continue his education or gain suitable employment upon graduation.

As the program has progressed, the staff has taken a periodic look at where we stand on objectives and hypotheses and partial evaluations are included with the annual summaries in Chapter III. The research report in Chapter IV includes supporting data for the fourth year and a cumulative evaluation.

Evaluation

1. Questionnaires administered to all members of the student body in 1966, and to selected class levels the succeeding years. A list of the instruments used appears in Appendix A.

2. Student interviews by the research men.

3. Parent conferences twice a year.

4. Evaluations by employers.

5. Weekly or biweekly staff meetings maintain openness to change and quick handling of individual student needs.

6. A new method of reporting student progress.

Not one of these methods would have been a reliable technique if used alone, but the combined data gives a representative measurement. Although the questionnaires provide the most logical and measurable means of data collection, we suspected that an unfavorable reaction to testing in general, and exposure to the same instruments each year might be skewing our results. Therefore in reviewing the research findings, the subjective material may prove more meaningful than the test data.

To personalize our teaching meant that we must personalize our evaluation methods. The usual letter grades and number grades were rejected because they were used for comparing one student with others. We

wanted to compare a student with himself and to evaluate his progress within the limits of his ability. Learning of subject matter was described by ratings of "proficiency", "progress", or "not progressing". Attitudes were rated on a three part scale. A sample of the rating card is included in this report.

In some classes teachers have replaced quizzes with daily work assignments and tests with study guides. The record books of such teachers often show only check marks for work done and often the check marks are few. Final evaluations by these teachers are highly personalized and reflect intensive objective and subjective consideration of each student. This rating of a student against himself has been an extremely difficult and highly satisfying job.

Repeatedly, certain teachers spoke of not understanding the grading system because of coming into the program after it was started and getting no instruction in the exact application of our evaluation system. Reactions varied, but in most cases these teachers continued to use a traditional marking system. In other instances a combination system was used, in which case, traditional letter or number grades were kept and later transposed into ratings of "progressing", "not progressing", or "proficiency" to meet our report form requirements.

Specific curriculum details are contained in the appendices to this report, but the following comments should serve to generalize successes and failures as they were experienced in both vocational and academic courses in our program.

Vocational Math and Senior Math

Selected parts of a textbook were used. The sequential order was not followed. Instead, the teacher chose appropriate parts to fit into the teacher-developed course. A few filmstrips were used with Senior Math, but too few were available. Outside speakers were used during the first two years of the experiment, but the results were dissappointing. Evidently, the different speakers didn't change the student's concept that this was one more lecture to be ignored. In other cases the speakers failed to successfully bridge the communication gap to the students, using approaches more suitable for adult businessmen than unmotivated young people.

The math teacher tried to individualize his course by several means. He let students work together on homework and class projects. Although they shared answers in some cases, their arguing and discussing was an indication of productive activity. He helped the students to get excited about having the right answers, pursued their successes with compliments, but deliberately avoided

approving work that was incorrect. Students were asked to put problems on the board only when the teacher was sure they knew the math concept well. To further individualize, students with extreme difficulty were assigned to tutoring sessions available in the school program. The wide range of ability in the classes were dealt with by individually assigning work from the many difficulty levels in the text.

Although individualizing was emphasized, it is important to know that the teacher pointedly arranged a structure to the class sessions. He took the responsibility of setting an atmosphere for study and concentration before going into the specific daily assignment. At that point individualizing began.

Consistent with the need in other academic courses for more practical work in the earlier high school grades, ninth grade Vocational Math students were given extensive practice in skills. The teacher made some practical application of math skills in this ninth grade class, but felt that the students were not mature enough for more.

Discussion of theory and the mathematics of income tax reports, insurance policies, etc. was emphasized in senior Vocational Math.

In evaluating math students, the teacher rated the students individually, against only themselves, to arrive at ratings of "not progressing" or "progressing". Numerical scores on tests were used in selecting students for a "proficiency" rating.

Vocational Biology

During the four year experiment, Vocational Biology has been taught by three different teachers. In this course, as in some other academic courses, teachers were assigned, or at best, asked to teach this vocational course. The result has been an unevenness in the degree to which innovative procedures have been used.

One biology teacher who was "assigned" to this course, says that the teacher can't teach just biology. He must honestly teach so that each student sees himself as important. He also recommends that it is essential to have the physical object before the student if theory teaching is to be effective.

Teachers complained of no pre-service training to clarify the grading system in particular and our vocational philosophy in general. One teacher saw the philosophy of freedom as license for the student and restriction for the teacher. The outcome was confusion and a resultant demand for more "rules" and less "freedom".

Vocational Sociology

The brief life of this one semester course proved a number of negative concepts. Created during the summer to solve a scheduling problem, Vocational Sociology failed. It failed to give the students relevant, useful information. It failed to further the positive self-concept of the students, and it failed to give the teacher the right experience in using our experimental approach.

No curriculum was developed for the course before the year began. The teacher was given a one-day orientation in the basic purposes of our program, but received no further guidance as to his choice of materials and techniques.

The teacher of Vocational Sociology was new to the school system as well as to the course. In trying to implement his limited knowledge of the philosophy of our program he used less structure than many of the other vocational teachers. This was a natural mistake and one which most of the teachers in our program have made at one time or another. In this case, other factors combined with the lack of structure to render the course all but ineffective.

Newspapers were used as the basis for examining problems of society. The teacher tried to let the students lead with their own interests and ideas. There were serious drawbacks to this ostensibly sound approach. Much that the students wanted to deal with was to be covered in a Family Living Course the second semester. The teacher knew that and tried to prevent the duplication. More crucially, the students were so negative to society that they didn't even care to examine the problems of that society. The teacher tried to define terms of sociology to give the class basic tools for analyzing their world. They rejected that as too academic and unrelated.

No testing was used because the teacher tried to be open and to create in the student an open willingness to speak up. With extremely little structure to the class, this approach (a very sound one) was met with irresponsible disorder.

As in other less dramatic instances, vocational sociology proved that in depth pre-service training and in-service guidance is necessary for a teacher in an experimental or innovative situation. It showed that adequate and realistic curriculum planning is necessary before a non-textbook approach is started. It pointed up the necessity for adequate, relevant and physically available materials in large quantities.

Vocational American Studies

One of the most unchanged academic courses was Vocational American Studies. Begun with no curriculum preparation, the course was adjusted only in the sense that a different text was used for the first three years and quiz and test grades were converted to match the vocational grading system. Teachers of this social studies course point to the overload of thirty or more students per class each year of the experiment. They say that they recognize the need of working more individually with the vocational student, but found it impossible to try such methods and still retain control of the large group.

A booklet on American history study questions replaced the text for three years, but the teacher returned to a traditional text during the fourth year. His reasons reveal that the students responded better to an informal approach to current events rather than the more formal assignments in the prepared pamphlet. Also, it was remarked that students were now writing better and didn't need the structured writing assignments in the booklet.

World of Work

This introduction to the wide range of employment opportunities and requirements was moved to the eighth grade from the ninth during the last two years of the experiment. In doing so, we could provide information for all Hudson students instead of just those who had joined the Vocational Program.

Frequent use of films and field trips made this a popular course. The teacher cautions against excessive use of films, however. After a certain number were used, and there are many available for this kind of course, the students were less easily interested. Outside speakers were used, too, but as in our math teacher's experience, they were often speaking as if they were addressing business peers instead of junior high school students. We recommend that outside speakers be asked to bring in some physical object or equipment representing the kind of work they are describing. Any use of physical examples greatly increases the student interest. For example, one speaker on banking brought in samples of foreign money for the students to examine.

This necessity for interesting presentations was repeated in the teacher's comment that the nature of the students' attitudes often was that this was a frill course and of little urgent importance. The students' own interests must help to dictate the course content at times. For example, an end-of-the-year survey revealed that the students wanted more days for general discussion developed on

such topics as conformity and the ways in which one might be able to conform or not. This reaction is encouraging to educators who want to use guidance based teaching methods.

Extensive use of non-textbook materials places an extra burden on the teacher of any subject. In this course with its use of many field trips and outside speakers, a teacher needs to have enough free time to arrange the trips properly and to help prepare guest speakers and field trip hosts. The teacher needs this time to talk to the contact man on the field trip and explain the nature of the course, the age and intelligence level of the students, and to suggest particular points that might be emphasized. If this is not done, the trip becomes just one more recreational plant tour. The most successful trip involved a visit to a comptometer operators' school. Each of the girls on the trip had the opportunity to sit at a machine and go through one of the basic processes in comptometer operation. Because of the planning, the students could thus project themselves into the job situation.

Vocational English

English teaching at all four grade levels was so drastically changed that few meaningful generalities can be made in this part of the report. No grammar text nor literature anthology was used during the experiment. Writing instruction was based on teacher-made materials exclusively. Paperbacks were used for literature and, as the program developed, fewer and fewer class-wide assignments were made. Instead, individual reading was expanded each year. Some teachers gave no quizzes, tests or exams during the entire four years, replacing them with study guides and self-evaluation sheets that were not graded in any usual way. Programmed language skills materials, first thought to be an answer to the need for individualization, failed early in the experiment. Students were simply not motivated to do work that had no immediate relevance. A listening lab proved to be interesting to the students, but it was impossible for the teachers to prepare enough tapes to keep the lab functional.

Our goal was to guide our students to lifetime skills, tastes and goals while helping them develop the capabilities within them. We think we did it.

Business Education

The business department of Hudson High School has not benefitted from the Vocational Program. The equipment necessary for teaching typing and shorthand and use of business machines was already in the school. Courses were set up and operating at the time the Vocational Program was begun.

Few students in the Business Department can be classed as vocational students. There are a few "mixed" students, but the enrollment here is mainly college preparatory. There are only eighteen (18) vocational students out of one hundred and fifteen (115) students in Typing I. (Since requirements in the Home Economics Introductory Unit have restricted students' time, an introductory course in typing has been dropped from the curriculum.)

Some conclusions made by the typing teacher are:

1. The introductory courses did not bring more vocational students into the Business Office Education Program and especially did not increase the number of boys enrolled.

2. The high percentage of college preparatory students in the introductory course and Typing I have kept the course the same with no really new methods developed.

3. Since typing is a skill subject, there is a one-way nature to the teaching, thus, eliminating a need for special guidance methods to deal with discipline problems since those don't come up.

Cosmetology

Few classes better implemented the vocational philosophy than the Cosmetology Unit. The teacher worked almost constantly on the one-to-one basis with students because of the low class size. Instruction was based on a highly personalized relationship between teacher and student. Working completely on her own, the teacher used no formal text. Instead, worksheets and practical exercises were combined with lectures and lecture-discussions to present the information necessary for passing the Ohio State Board Examinations.

Closely geared to the guidance approach, this course relied heavily on a close rapport between teacher and students. In cases of extreme need, the teacher was free to step out into the hall and counsel with a student to help her adjust to the class job. Or the teacher would refer the student to a female guidance counselor who worked closely with the cosmetology teacher. Also, the teacher would seek advice from the guidance counselors so that she could handle the case herself. Often the teacher would talk to the parents by phone to add another dimension to her guidance techniques.

Although it has now been limited, an introductory course in Cosmetology was, according to the teacher, highly valuable in helping girls make a wise choice in choosing or not choosing to enroll in the Cosmetology Program.

A valuable adjunct to the Cosmetology course was the social service experience in which the advanced students took part. They travelled to a nearby mental institution to help the patients with hair grooming problems. Unfortunately, restrictive supervision requirements and transportation limitations forced the teacher to abandon this plan. The extent to which this experience encouraged involvement in community service is reflected in the girls' talk of helping in an area orphanage on their own.

Machine Shop - Auto Shop - Print Shop - Electric Shop

Automotives instruction was hampered in its first year by a number of factors that should be avoided in starting similar programs. We started out with the wrong students. For many, automotives was a chance to escape to a "new shop class", and so there was no real motivation toward the technical aspects of auto mechanics. Also, students had misconceptions about the subject and came in expecting to be able to work on their own cars immediately. Naturally, they were disappointed. Bad scheduling created classes of combined eleventh and twelfth grades and caused individual daily schedules which forced students to come in at odd times or to leave in the middle of a class. Facilities were too small causing the teacher to deal with "thirty (30) boys in a hallway".

Suggested solutions to these first-year problems have included a better selection of students. We selected and they selected. Our "choice" was a matter of guiding students better by giving them more accurate information regarding the content of auto mechanics and by providing introductory courses in other shop subjects. They chose more carefully, probably because there was a chance to talk to students who had been in the course and knew what it was like.

The Automotives Course has attracted students from neighboring school districts who have been willing to pay tuition.

The teacher of Introductory Electricity had severe problems in keeping the students interested and motivated. The course was too academic in nature for the wider range of vocational students being exposed to the introductory course. He now recommends that, to get more variety in the electricity course, more equipment for experiments be provided. He also suggests that blueprint reading and machine shop be scheduled together so that students can alternate between academic and skill work.

All shop teachers feel that Hudson is too small to carry a complete Vocational Program with enough breadth. Their solution is that we should bring in students from nearby school districts and encourage other small schools to establish vocational units to which our

students could be sent. They further suggest that some school in the area set up a complete vocational machine shop and make a follow-up study to support or challenge the recommendation for shared programs.

Personal reactions include the feeling by the Machine Shop teacher that he was able by the nature of his courses to give more individualized training than in Auto Shop. All of the shop teachers believe that requirements for state approval of vocational units severely limited the flexibility of the shop programs with the result that they are not really experimental as had been intended.

Our introductory electricity is probably more academic than the traditional Industrial Arts electricity course. Ours is taught through theory and experimentation rather than the project method. Since this may be the only time our students are exposed to an electrical course and since electricity is highly theoretical, we teach sixty percent (60%) theory and forty percent (40%) experimentation and manipulation.

A text is used only for reference and make-up work. A great deal of time is spent with lectures, film strips, charts and demonstrations and quizzes. A school-made work book is used to focus attention and as review reference. The previous day's work is almost always covered by a quiz the following day. Experiments include proving or applying facts about electricity. These facts have been previously covered or learned by the discovery method. In the latter case the student learns facts about electricity by experimentation and thus, arrives at conclusions concerning electrical theory.

Most of our students have difficulty with the course in electricity. Our average student is rather low in general academic achievement and he finds it difficult to deal with highly theoretical topics. They show extreme difficulty in applying cause and effect relationships and applying simple mathematics. These students are not capable verbally and it is difficult to get them to answer in specifics rather than broad generalizations. They try to memorize facts and ignore application of facts.

Many hours must be spent in review and drill. Electricity, like mathematics, builds fact upon fact. If the student falls behind or loses interest for a few days he is hopelessly lost. Often a controlled experiment causes the student to become so involved connecting wires and reading meters that he completely loses sight of the purpose of the experiment.

There is a high correlation between general academic achievement and success in this course. The student who does well on the general achievement tests does well in electricity.

Of all our courses in Vocational Introductory, this course needs the most rethinking and reorganization to reach the type of student we have. Perhaps we are being too specific and should try for broader general concepts of electricity with less mathematics and more manipulation. However, going back to a course which is ninety percent (90%) metal shop is not the answer.

Vocational Psychology

In an effort to acquaint young people with the exciting realities of the World of Work, we have developed a number of courses in the experimental curriculum. The first was the Occupational Information course, which attempted to touch all job categories from the highest professional training to the least demanding skill preparation. This was offered to ninth and tenth graders during the first two years of the experiment, and an outline of the curriculum used appears in the Appendix. During the first years a Vocational Psychology course was also offered to upper-classmen - more sophisticated in its immediate approach to job situations, economics and personal attitudes.

Many of the students electing this course already had part time jobs, and "tuned out" on the study of occupations. But they also contributed realistic information on what was expected of employers.

As the program continued, more students were coming along with previous exposure to the Occupational Information and World of Work course, so the Vocational Psychology has become more a "group counseling" and training in self-evaluation situation. Time is spent on the results of the Kuder Inventory and General Aptitude Test Battery. Since the course is taught by the Vocational Counselor, contact with students in such a class gives him opportunity for valuable group work.

Living in Society

This course was presented for seniors in the first three years of the program. Taught by the head of the Guidance Department, it was aimed at the student moving directly from high school to job, marriage and all the responsibilities, privileges and problems of rather sudden adulthood. It, like the Vocational Psychology course, presented an ideal situation for group guidance, and although much was covered in discussions, films, speakers and reading, course structure was minimized. However, an outline does appear in the Appendix, to give the reader an idea of the scope of the course.

In the fourth year of the program, the same course name has been used to encompass the required Health Course - much expanded to help young people adjust to the problems and expectations of teenagers in today's complex society. The course is given in tenth and eleventh grades, and taught by the head football coach.

Home Economics

One of the most successful approaches to bridging the gap between school groups is to mix them in classes. The vocational Home Economics Unit has served the girls in the Vocational Introductory courses in ninth and tenth grade, as well as many college preparatory girls and even some New Dimensions boys who have elected work in the unit.

As an approved State Unit, the course offers a comprehensive exposure to all homemaking skills, and a demonstration project in Consumer Economics is planned for next year. The curriculum does not appear in this report, as the content is comparable to that recommended in most states.

Both teachers in the Home Economics and Child Care Units participate in the State in-service training at Kent State University and Ohio State University in Columbus, and keep abreast of new publications, materials and methods in their area.

Several resource books are used for the training in foods, and an excellent text - Margil Vanderhoff's "Clothes, Part of Your World"; Ginn & Co. 1968 - is read. A new book, "Relationships - A Study In Human Behavior", by Helen Gunn Westlake: Ginn & Co. 1969, is used in training for attitudes and personal relationships.

CHAPTER III

OPERATION OF THE PROGRAM WITH ANNUAL EVALUATION

1965-1966

School opened in September 1965 with a very new look. During the summer months renovations in the existing building permitted the equipping of three (3) skill training laboratories: Automotive Mechanics, Cosmetology and Graphic Arts. These were added to the existing offerings in Business Education, Home Economics and Industrial Arts.

During the summer the scheduling of these manipulative courses was adjusted to accomplish two things:

1. To provide a variety of introductory short courses for ninth and tenth grade boys and girls.

2. To provide in-depth training for eleventh and twelfth grade students in skills leading to employment opportunities upon graduation.

None of these training units were under State of Ohio Trade and Industrial supervision during the first year. The primary reasons were the experimental nature of the program and the space required for approval. The Cosmetology Unit was subject to licensing and supervision by the Ohio State Board of Cosmetology, since students in this two year course are being trained toward State Board examination and subsequent licensing as cosmetologists.

It was anticipated that the skill units would become "approved" as space and student numbers increased.

The general curriculum was dropped, and new courses of study were introduced in required academic subjects (Science, English, Math and History). Additional requirements and electives in Occupational Information, Career Psychology, Art, Home Economics, Cooperative Work Experience were provided. The proposed curriculum for the first year is listed in Chapter II.

An ideal situation of flexibility, exciting innovation and variety existed during the first year. The guiding philosophy of building instruction around the needs and aspirations of students and the attempt to give deeper meaning and personal value to learning, were our primary interests. There was little pressure toward conformity to regulations of time and content, and lines of communication between teachers, students, parents and community were constantly active.

The original group of teachers, administrators and the research team were totally convinced of the need for changes and were involved in creating a workable plan. Perhaps more than any other point of advice to interested educators would be the necessity of in-service preparation and continuing close communication of the involved individuals. The teachers who lacked this summer in-service preparation were at a great disadvantage in implementing the philosophy and innovative ideas which would nourish the program. It became increasingly evident that the success of the total idea - of motivating the disinterested or frustrated student, of changing attitudes, of providing positive and realistic training - depended on the individual staff member. There must be a true conviction that these students are worth teaching, that new methods of reaching them are needed and that the creation and use of appropriate techniques will bring great rewards to both teachers and students.

In a controlled situation, where staff could be held stable through an experimental period, such in-service training and continuity would be ideal. With the staff changes which occur annually in most public schools, such perfect planning is impossible. Many people have contributed to the program during the experimental phase, and staff changes have brought the positive contribution of fresh ideas and new perspectives.

At the end of the first year we recognized a number of strengths and weaknesses:

Strengths:

1. The early vocational orientation of all vocational students through observation of and active participation in a variety of skills proved stimulating and effective. These introductory laboratories, combined with the Vocational Information course provided an informed basis for later choice, and also gave the instructors insight into student aptitudes. The research results of the first year indicated a stronger career choice pattern among vocational than college preparatory students. The students themselves expressed a liking for this variety of exposure, and parents expressed their enthusiastic approval during personal conferences.

2. A strong working relationship was built between the school and local businesses and organizations. The flexibility of the work program and the variety of job placements was a satisfactory supplement to the in-school training units.

3. The trend toward a "mixed program" - a student taking some vocational and some college prep subjects - was evident. This was a healthy development and a means of bridging the

divisions between groups. An interesting reflection in the research data of 1966 is the strong pressure toward college of all students and their parents. This is a community characteristic - a status symbol - which has proved difficult to overcome.

4. The intensive personal counseling available produced evident results in more realistic self-appraisal and establishment of goals. Specific attitude improvement was notable in many "negative" students.

5. The annual incentive awards, given for the greatest improvement in school performance, went to twenty (20) vocational students out of twenty-eight (28) total. Eight (8) vocational students won scholarships for post high school training.

6. The number of drop-outs dropped from twenty (20) to six (6).

7. The ungraded evaluation card (shown in Appendix E, Page 168, proved popular with most parents, students and teachers.

8. Involvement of vocational students in school activities was accomplished through formation of the Vocational Student Advisory Council.

<u>Weaknesses</u>:

1. The stigma attached to being in "non-college" or "vocational" courses was - and still is - stimulated by status-conscious parents, students and teachers.

2. A few students have taken advantage of the new flexibility and relaxation of strict discipline, and have provoked some criticism of the program in school and community. There was an increase in the absence rate during the first year.

3. A few teachers have found it difficult to operate in an unstructured, flexible environment. This points again to the need for pre-service planning and a dedication to the need for change.

4. There was a decided criticism by students of certain academic areas reflected by research data, and the subjects were those in which the teachers lacked the in-service training and took the "old guard" approach to "proven methods and materials".

5. A weakness in the Vocational Introductory Short Courses for girls, especially at ninth grade, was a matter of concern, and this problem will be discussed later in this chapter.

The research data - both test and non-test - showed that the vocational student felt an importance and identity which was new and gratifying. He found the new program more interesting and easier (perhaps caused by the new evaluation and absence of frustrating grades) and welcomed the closer student-teacher-counselor relationship.

A valuable contribution to the first year was a travel grant from the Ford Foundation, allowing several members of the administrative and teaching staff to visit innovative programs in Boston and San Francisco. Although no effort was made to copy any courses or programs in their entirety, we gained many ideas and techniques which were later incorporated into our own program. One of the most exciting was the FEAST (Food Engineering and Service Technology) Program operating in several San Francisco schools and the State College. It represented job training and placement in a most realistic situation.

1966-1967

The beginning of the second year of the program brought additions to the Vocational staff and program - Cosmetology and Automotive Mechanics became state approved units and an expanded printing facility was opened with an industrial printer as instructor. This latter unit lacked the space for total conformity to state standards, but in other aspects of schedule, equipment and curriculum, it was comparable to a vocational training unit.

Courses in Vocational Sociology and Family Living were added to the curriculum, and new staff members were brought into the Science and Social Studies departments. Although neither of these two men had a formal in-service training period with the regular staff, they developed excellent rapport with the vocational students and accomplished much in stimulating interest and a sense of the meaning of learning in their subject areas.

Research and subjective evaluation after the first year had reflected a need for a Social Studies Course dealing with the immediate civic concerns of the non-college student. The instructor was successful in finding many areas of interest which could be molded into a loosely structured course, but there was too little structure, and too little basic knowledge of American History and government included. It was hoped that the instructor would develop such a combined offering during the summer, but his move to an administrative job in another school left this need unfinished.

The move toward State approval in vocational training units was economically desirable, and also provided a teacher educator to work with the trade instructors. As the school applied for such approval, the board was confronted with the rigid control on numbers of students, required space, equipment and the time schedule. In a small school desirous of providing a broad program, conformity to these regulations is difficult.

The desired flexibility expressed in our original plan gave way to required structure. The very popular and effective short introductory courses in ninth and tenth grades were affected by the requirements of the approved units. Without additional personnel in the skilled trade areas and more space, some facilities could not be made available to the underclassmen for the introductory phase. The complexities of reconciling an educational ideal with existing circumstances is not new, and problems were solved to keep flexibility and student benefits in priority.

During the second year the basic philosophy of individual importance spread to other school programs. Time was spent planning the World of Work Course at the Junior High School. This was a refinement of the Occupational Information Course offered to vocational ninth graders. It was the observation of the staff that we were reaching only the students who, by one reason or another, had been led down the vocational track. To offer such orientation to all eighth graders might stimulate realistic choices in more high school students. A very stimulating and popular teacher undertook this assignment, and was given summer planning time to develop course content and secure speakers and films.

Another program which gained impetus because of the success of the vocational experiment, was the New Dimensions curriculum for college preparatory seniors. Planned as an independent study with an interdisciplinary approach, this program provided a broader exposure to ideas, experiences, and varied human contacts than is normally supplied in a secondary curriculum. Liaison with vocational staff and laboratories was built into the planning.

In evaluating the extent of our goal achievement in the second year, we studied our original goals as well as the research data. Some changes had been made in the instruments used the first year, due to the time needed for administration and some questions as to the validity of student responses. The questionnaires are described in the research chapter, so data will be mentioned here only as it helped us make improvements in the program.

Progress toward a more functional life oriented curriculum was evidenced by student accomplishments. All but one of the vocational graduates in 1967 moved into full-time employment upon leaving school, and in all cases this was in a field related to their school training or a continuation of the work experience started as a school credited activity.

Most of the students and parents continued to express positive opinions of the Vocational Program. Parents were almost unanimous in indicating that their children had more positive attitudes toward school than before the beginning of the program. The evaluation form which replaced the regular grading system continued to be popular, and there were more students in the above average classification than in the first year. It is difficult to prove that this means more effort and motivation, but this premise is supported by student comments on various courses.

A few criticisms came out in both research data and through personal conferences:

1. In an effort to inter-relate all courses and emphasize the concepts most needed by these students, teachers were being too repetitive. This over-reacting to the new philosophy was not unexpected and since the students were quick to bring it to the attention of the staff, it was worked out.

2. The inevitable problems of defining credits and grades with two differing evaluation systems had to be worked out with mixed students. It proved a matter of interpretation and establishing a simple scale of equating the two systems. There has been a little more work involved for the office personnel, but each year has been smoother.

3. The more relaxed school atmosphere had a positive effect on some students, but the attendance record did not improve (except for the vocational students in grades eleven and twelve). The drop-out rate, having been lowered dramatically from twenty (20) to six (6) in the first year, rose again to eleven (11). The halo slipped a little after the first year's excitement and newness.

4. The Index of Adjustment and Values showed a drop in self-satisfaction and ideal self scores of vocational students in this second year. This is not necessarily a criticism, as guidance toward more realistic self-appraisal and goals was an intent of the program, and was much needed by a number of students.

One of the hypotheses stated that a Vocational Education Program would be accepted in a primarily college-oriented community. As explained in the introduction, there was a carefully planned campaign of community indoctrination, which has payed dividends ever since. The Board of Education has increased its financial support of the program, and the community has shown its support of the program through employment openings, equipment for the laboratories and sponsoring of student activities.

Planning for an approved work unit in Diversified Cooperative Training involved not only the existing Business Advisory Committee, but representatives of industries out of the community. A very large group of interested business people gathered for a recognition dinner at the end of the year, and did much to spread the good reputation of the program.

Information on the program was spread to other areas of the country, through seminars sponsored by the Center for Occupational Research at North Carolina University. Meetings in Raleigh and Atlanta were attended by educators from most of the southern and middle Atlantic states. Talks were given at both these meetings by staff members, and similar speeches were presented to the Ohio Guidance Council. An article by Mr. Benham "Vocational Challenge" appeared in several educational publications and resulted in many requests for material.

As we reached the mid point of the four year experiment, we felt much more confidence in what we were attempting and even a glow of success. The only cloud on our horizon was a feeling that some of the first excitement, flexibility and commonality of purpose was slipping away.

1967-1968

The changes made in courses for the third experimental year were motivated by research results and by developments in other school programs.

The New Dimensions students began to take advantage of the facilities of the Vocational Program. College preparatory seniors were exposed to short courses in Printing, Photography, Woodworking, Cosmetology and Home Economics. The results included statisfying personal experiences, as well as better understanding and mutual respect between curricular groups. This, in turn, promoted interest among non-vocational students having even earlier exposure to the skill areas. This was most workable in the Home Economics and Industrial Arts courses, and increasing numbers of college preparatory freshmen have taken electives in these departments.

Very important in this third year was the beginning of the World of Work course for all eighth graders. This broad exposure for all students makes good sense as a general educational offering, as well as being a stimulus of more realistic scheduling. The course has been taught by a lively and imaginative teacher, and the research results (ETS Guidance Inquiry - Appendix D, page 146) reflect real gains between pre and post-test scores on the job knowledge. The curriculum outline (Appendix A) and the comments made on curriculum in a subsequent section of this chapter, can give an idea of the course scope and the approaches used.

Community contacts through the two job programs continued to be excel lent, and the new Diversified Cooperative Training Program appeared to

be another bridge between the college preparatory and the vocational students. Half of the enrolled students were college oriented, the other half divided between full vocational and mixed programs. In actual fact, however, there was no evidence of class solidarity. The students were together only one or two periods a day, and then went their separate ways to a wide variety of jobs.

Another weakness in the total job program was the difference in placement procedures and work regulations between programs. The Diversified Cooperative Training class, as an approved vocational unit, was operated according to rigid rules, almost separate from the rest of the school. In contrast, the more flexible work experience course had fewer requirements and restrictions. It included a cross-sectional array of job opportunities and training; it accepted students from any class level (provided they met the requirements of age, schedule and appropriateness of placement). A group of four people - the Principal, the Vocational Supervisor, a Guidance Counselor and a parent - made the decision on placement. The Vocational Supervisor provided the on-the-job contact and individual job guidance of the student. As far as individualized attention to student needs was concerned, this plan was ideal, and in only a few cases did the student not live up to our expectations.

At the end of the year an Employer Appreciation Dinner drew almost all of the employers and students involved in the two programs. Although provided by the school, it was hoped that a community group could sponsor such a recognition dinner in the future.

Two major efforts of the experiment showed gains in the third year. The new grading system had, by this time, become an accepted routine, and we made some comparisons of student progress between the first and fourth grading periods. The comparison showed the following totals for eight courses tallied.

+ = Outstanding P = Progressing N = Not Progressing

1st Report Period			4th Report Period		
+	P	N	+	P	N
20	196	17	64	167	2

This gain in + performance ratings was highest in English courses, but occured to some degree in all other courses. The increased motivation observed in the students may explain this result.

In 1966-67 we experienced a rise in the number of drop-outs over the previous year. Two of these returned, one to graduate in 1968, and one to join the Navy and complete his schooling in the service. He returned to visit school twice, anxious for us to know of his success.

In 1967-68, seven students dropped out. All were in their junior year, and two were college preparatory students.

Other aspects of the original plan which have undergone change are the advisory groups. The Business Advisory Board has become much larger due to the expansion of the job program. The number of business connections maintained by the Diversified Cooperative Training and Work-Experience Coordinators has increased the school's contacts and provided new placement opportunities when needed. Formal advisory meetings were not considered necessary in such a small and closely knit community.

The Professional Advisory Committee as originally set up, designated vocational education specialists at Kent State and the research consultants from Ohio State, to work with the local administration. After the first year, administrators and guidance personnel from neighboring schools worked with Hudson on a cooperative student exchange plan. In addition, the growing number of state-approved training units in the Hudson project (reaching 5 1/2 in 1968) added teacher-educators and an assistant state supervisor to the advisory group. Communication between the program supervisor and various members of the group is as frequent as needs arise.

The Kent staff has been extremely helpful in recommending teaching applicants for the expanding program, and in providing excellent in-service training for the specially certified trade instructors.

The third advisory group is the Vocational Student Advisory Council. Its growth was almost too healthy in the third year. The small faculty-picked group of eight students who tentatively reached out for attention and group identity, burgeoned into a voluntary membership group of fifty vocational students. Under the leadership of four elected officers and a faculty advisor, they planned social projects and achieved enough financial success to contribute to the Village Teen Center.

Pressure began to be felt to fuse student activities under one council, as the rivalry of the two groups was again causing divisions. A Vocational girl was elected secretary of the high school student council for 1968-69, and better exchange of ideas was anticipated.

It has become increasingly evident as the program progresses, that differences between groups cannot be erased entirely. In no segment of society do all people have the same interests, ways of expressing themselves, or means of shaping and using their environment. This fact is strongly evident in a school population. The majority, (in our case, the college preparatory students and teachers) does not always comprehend the needs and goals of the vocational student or his teachers, nor the wisest way to achieve these goals. We have seen a carefully nurtured bit of success, self respect and budding motivation, turn into bitterness and discouragement due to an unthinking action or sarcastic comment. But this has been the exception rather than the rule.

As the vocational student develops a better understanding of himself he becomes more realistic about his environment. This may bring some apparently negative results in occupational choice levels. Actually the research results in the first year reflected a lack of realistic knowledge of the world of work, and the self-ratings on the 1967-68 questionnaires are closer to potential achievement levels. We see also in this year fewer vocational students expressing a desire for further education. The practical training now offered, and the evidence of successful job placement upon graduation can explain this change.

Strengths:

At the end of three years we could point to a continuing of original purposes:

1. The curriculum was offering increasing breadth of opportunity, and many students outside the strictly vocational group were taking advantage of some aspects of vocational training.

2. The emphasis on the individual student was showing clear results in holding "negative" students in school and even developing some occupational interests in them.

3. The maintenance of close parent-school contacts, through the scheduled conferences in Fall and Spring, provided excellent support for the students. In most cases teachers used these talks for positive comments and to suggest ways in which parents could supplement the school's effort and interest.

4. The provision of the World of Work Course for all eighth graders proved superior to the original information course for the ninth grade vocational students in reaching more students at a more appropriate time.

5. Including more "State approved" Vocational units brought the advantages of a teacher-coordinator and additional financial support. It will be noted that this program growth also brought some disadvantages which must be listed as weaknesses in our total program.

Weaknesses:

1. The increase in regulations, organization and limitations inevitably resulting from vocational unit approval, decreased the desired flexibility of our original plan. The specific effect was felt in the introductory courses for ninth and tenth graders. Time requirements in the units and limitations on scheduling reduced the number of exploratory experiences offered.

2. Changing of staff assignments, and insufficient indoctrination of new teachers weakened continuity of philosophy and purposes. The hoped for infiltration of the successful methods and techniques into all subject areas was not totally achieved.

3. The ideal guidance concept - of utilizing every person coming in contact with the student - was not developed to its maximum. This weakness was primarily due to lack of staff time rather than a break-down in communications. When time permitted a "case conference" with all these contributing agents, the results were outstanding.

4. A problem exists in finding teachers willing to tackle the difficult assignment of making the academic subjects relevant and stimulating to the vocational students. We have seen teachers able to accomplish this for two years, and then request a change.

In summary, the year 1967-68 was a successful one with many positive results for students. Our most valuable indicators of success are the students themselves, and it is in their subjective evaluation of the program rather than through numerical research data that the true value emerges.

1968-1969

General Report

The final year of the program was influenced by several changes. The effects were so deeply felt that they must be discussed so that the year can be evaluated in proper perspective.

Administrative changes in the top school positions brought in many new people who were not familiar with the development of the program.

Dr. William Cunningham, Superintendent of Schools, replaced Mr. John McDowell, who retired.

Mr. Lloyd Benham, High School Principal, accepted a superintendency elsewhere and was replaced by Mr. Gerald Reeves who had been Hudson Junior High Principal. Assistant to Mr. Reeves is Mr. Michael A. McDonnell, previously a science teacher in the Junior High School.

In the middle of the year, Mr. William Pletzer assumed the position of Director of Curriculum for the Hudson system. He has been on the staff as an administrator for more than ten years.

Naturally it took time for this new team to learn about the previous planning and three years of operation of the program. In some cases they were not in total agreement with the philosophy or the relation

of the program to total school operation, and changes and compromises were made. They questioned, and rightly so, the evident lack of discipline and conformity to school regulations shown by some students. This has perhaps arisen from a few not being mature enough to enjoy flexibility without taking advantage of it. Naturally a tightening of discipline brought adverse reactions, but as the year ended there seemed good readjustment.

In a time when many students are exhibiting negative reactions to imposed controls of any kind, the maintenance of orderly school procedures demand a very careful balance between freedom and rules. When freedom becomes license or irresponsibility, the obvious purposes of an educational institution cannot be achieved as quickly or thoroughly.

Another factor in the 1968-69 year which affected the Vocational Program was the scheduling of a year-long evaluation of the high school by the North Central Association of Secondary Schools. Although the process was a very valuable means of self-evaluation by all departments, it was also extremely time consuming, and reduced the special attention to students and staff communication time which have characterized the Vocational Program from the beginning. The demands of the North Central brought a resistance of all faculty to additional meetings and reports.

Nevertheless, the year brought some very outstanding results:

1. The number of vocational units approved by the State of Ohio was as follows:

Automotive Mechanics	1
Child Care	1/2
Cosmetology	2
Diversified Cooperative Training	1
Home Economics	1

   Due to lack of applications, the Diversified Cooperative Training Program was dropped at the end of the 1968-69 school year. The Work-Experience Program will be continued for a limited number of juniors and seniors, for we still see a need for this opportunity for students. However, an increase in the very popular Child Care Training to a full unit in 1969-70 will improve our offerings.

2. Additional training units will continue as part of the curriculum in:

   Graphic Arts (Printing & Photography)
   Industrial Arts (Building Skills, Metals)
   Machinery and Electricity

3. The total number of students in the Vocational Program has been less than in previous years:

    100 full time vocational classes
    117 students taking one or more vocational courses

    In a graduating class of 186, there were:

    25 full vocational
    22 mixed program

    This concept of mixed program is desirable, and one which the present administration favors as realistic and a means of breaking down inter-program divisions.

4. The parent-teacher conferences were scheduled only once - in November of 1968. The usual Spring meetings were impossible due to the pressure of North Central preparation. These conferences continue to be a very positive influence toward student change and good communication.

5. As a result of a county superintendents' meeting at Hudson, the desired inter-school cooperative program of student exchange is beginning to expand. It has been the opinion of educators in some districts that a cooperative plan is a desirable alternative to the area Vocational School. A small school can spread itself too thin in the attempt to offer a varied program, but by careful pre-planning with neighboring schools, more students can be served through reciprocity.

    Interest stimulated by Hudson's program has resulted in an interchange arrangement between five neighboring schools for 1969-70. Forty (40) students will be involved in this cooperative plan.

6. Community relations have been enhanced through the work programs, speakers to educational and business groups, and participation of our students in some trade contests. The favorable placements in the latter activities indicated the capable instruction that has been supplied.

Summary Evaluation

Details of the comparable four year data appear in Chapter IV, but certain observations on our successes and failures in achieving original goals should be presented here.

Although the total picture does not show appreciable improvements in the attitudes and self-images of vocational students, the staff feels that

tremendous gains have been made in individual cases. In evaluating the changes evident in the twenty-five (25) vocational or mixed graduates of June of 1969, some interesting statistics emerge.

1. Nine (9) were considered potential drop-outs as freshmen.

2. Eleven (11) have gone into full-time work started during school.

3. Seven (7) will be employed as soon as they complete the State Cosmetology Board exams.

4. Eight (8) are going on to apprenticeships or further schooling.

5. Two (2) girls did such outstanding work with Head Start as part of their Child Care training that they have been asked to continue as employed aides.

Of the total group the participants in Child Care and Cosmetology have made the greatest measureable gains in attitudes. This has been due to the teacher-guidance as well as the immediate application of the skill being learned.

In judging attitude toward school by attendance records, we are confused by the variables of illness and a year of no attendance taking. Far more reliable were results of interviews with students and parents, which showed more positive attitudes since the Vocational Program was started. These included the concepts of better teacher-student relationships, the usefulness of instruction, a fairer system of grading, and helpful direction toward career choices.

Still very evident after four years is the deep division between the college preparatory and vocational teachers and students. An increase in sociological divisions is apparent everywhere in society, and seems to be a symtom of our times. Again, generalizations are dangerous things, and we much prefer to point out the successful means we have used to bridge the gap.

1. Encouragement of mixed programs.

2. Involvement of vocational students in all-school activities such as sports, social occasions, councils.

3. Improvement of the "public image" of vocational education through successful job placements and community information service.

CHAPTER IV

RESEARCH RESULTS

Introduction

The primary purpose of the research design of the four year vocational education program at Hudson High School was to assess additudinal changes of the participating students and their peers in the college preparatory program. Also, it should be kept in mind that there were some students taking courses in both the vocational education program and the college preparatory program. These students were designated as being in a "mixed" program.

The original grant proposal approved by the U. S. Office of Education in 1965 for the Hudson Four Year Experimental Vocational Program stipulated research to determine attitude changes in students as a result of the curriculum innovations, more extensive guidance, and other supportive and motivating techniques.

The annual administration and evaluation of the questionnaires has resulted in comparable statistics and the development of some trends and patterns which relate to the original five hypotheses. The following instruments were used for this purpose:

1. Occupational Aspiration Scale [1]
2. Index of Adjustments and Values [2]
3. JIM Scale [3]
4. School Attitude Survey: Students [4]

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1. Copyright 1957 - A. O. Haller
   Dept. of Rural Sociology - A. O. Haller
   University of Wisconsin
   Madison, Wisconsin

2. Adapted from Index of Adjustment and Values - Robert E. Bills
   Robert E. Bills, Dean
   College of Education
   University of Alabama, Alabama

3. Copyright Jack Frymier
   Jack Frymier
   215 Arps Hall
   Ohio State University
   Columbus, Ohio 43210

4. Dr. John Cochran
   Akron University
   Akron, Ohio 44308

5. Vocational Development Inventory: Vocational Maturity Scale [5]
6. ETS Guidance Inquiry [6]

In addition, personal interviews were conducted with randomly selected vocational and college preparatory students and all vocational seniors in the Class of 1969.

Four of the original five hypotheses will be analyzed on the following pages. Hypotheses I, because it deals with differences between vocational and college preparatory students, the experimental and control group respectively, is discussed with the procedures in the Appendix. The remaining hypotheses will be discussed in this chapter. After the discussion of the findings by hypotheses, the results of the evaluation of the eighth grade World of Work class will be discussed. Finally, case studies of six representative vocational students will be presented.

Hypotheses

Hypothesis II - That, as a result of the vocational program, vocational students' attitudes toward themselves, school, and the world of work will improve.

RESULTS

A. Attitude Toward Self (Tables A-2, A-3, A-4)

1965-66 .... On the Index of Adjustment and Values, the vocational students had a higher opinion of themselves, were more satisfied with the way they were, and had less desire to be "better".

1966-67 .... In the second year, vocational students' self ratings were lower than those of the previous year. At the same time, the self ratings of college preparatory students increased.

1967-68 .... In the third year of the study, the self scores of the vocational students were lower than those of the previous two years. The self-acceptance and ideal-self scores of vocational boys were slightly higher than in 1966-67, but

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5. John O. Crites
Dr. John Crites
University of Iowa
Iowa City, Iowa

6. Copyright 1958
Educational Testing Service
Princeton, New Jersey and Los Angeles, California

lower than the first year. The self-acceptance score of vocational girls was slightly higher this year than in previous years; the ideal-self score was lower than previous years, and the self score was essentially the same.

1968-69 .... On the Index of Adjustment and Values, the only aspect of the self-concept which changed significantly over the four year period was the attitude toward self score of vocational girls. The girls' score on this aspect of the test jumped from a mean score of 86 in the ninth grade to 97 in the twelfth. During this same period the self scores of college preparatory boys and girls increased only slightly and the scores of vocational boys dropped fractionally. It is difficult to understand why this one group should evidence such a dramatic increase. One might speculate that most of these girls were in Cosmetology or Child Care where a great deal of attention is focused on the individual. In Child Care, the girls study human development and are placed in a situation where they are able to actually help other individuals, thereby increasing their own feelings of self-worth. In Cosmetology, the girls not only learn how to work with and help customers to be more attractive, but learn about good personal grooming, which increases their pride and confidence. An alternative explanation of this increase might be that these girls had established more definite life goals and therefore had increased self-esteem.

In addition, when results were examined for just direction and not degree of change by using the Chi Square technique (Table A-4), significantly more vocational girls' ideal self-concept score increased than did college preparatory girls'. The scores of eight vocational girls improved and only one lessened while approximately half of the college preparatory girls went up and half went down. It is probable that, as the vocational girls began to see themselves as more worthwhile individuals, they set even higher goals for themselves to attain.

The comments of one girl in Child Care might illustrate some of the dynamics involved in the improvement in attitudes toward self and ideal self concept of vocational girls. This girl commented that she took the vocational program because she wasn't getting along well in the college preparatory program. She noted that the vocational program seemed more relevant and, that she was learning more about people in the vocational program. She commented that the atmosphere in the vocational program was different because students were not always being "cut down" for not being college preparatory. This girl felt she learned that "somebody does care about you", and learned responsibility because of the school's trust in her. She concluded her comments on the program by saying, "It has made a better person of me.".

In summary, the hypotheses that their would be an improvement in the self-concepts of vocational students is partially supported in the instance of vocational girls. Vocational girls evidenced significantly greater change in attitude toward self and in ideal self-concept than did college preparatory girls.

The hypotheses was refuted in the case of the vocational boys. They did not demonstrate statistically significant change in any aspect of the self-concept from grade nine through twelve. Since the sample size was quite small, changes in scores over the four years would have had to be quite great to be statistically significant. There was only very slight changes in the mean scores from grade nine through grade twelve for this group.

B. Attitude Toward School

1. Attendance (Tables A-2 and A-7):

1965-66 - Vocational students had an attendance record which was poorer than that of the college preparatory students.

1966-67 - The vocational students continued to miss more days of school than the college preparatory students.

1967-68 - Attendance was not calculated for this school year.

1968-69 - When vocational and college preparatory students' attendance records were examined for changes over the four years, no significant differences were found between the changes in vocational and college preparatory students' attendance. College preparatory students missed fewer days of school at both the ninth and twelfth grade level. In addition, vocational students' attendance did not improve more than college preparatory students' over the four years. Therefore, attendance records do not support the hypotheses that vocational students' attitude toward school improved.

2. Interviews:

1965-66 - Samples from both the college preparatory and vocational programs expressed primarily positive attitudes toward school and the vocational program.

1966-67 - Vocational and college preparatory students continued to express generally positive opinions of the vocational program.

1967-68 - Vocational and college preparatory students continued to express generally positive opinions of the vocational program.

1968-69 - In reviewing the interviews held over the four years, including interviews with almost all vocational seniors in 1969, certain student reactions toward school seemed quite general.

For almost all vocational students, with the introduction of the vocational program, the concept of school changed from a place where you studied "books" exclusively to a place where you learned by doing. In turn, school became a pleasant experience where before it was not. Vocational students felt that, in the vocational program, they were learning things that they could use, and the material was presented at a level where they could comprehend it. In addition, all portrayed their relationships with the teachers as more informal, trusting, and relaxed than in previous years. Students felt that teachers were more concerned with the individual than with the subject matter and, therefore, attempted to make the subject matter relevant to their needs. Many students said they probably would have dropped out of school if the vocational program had not been available.

Reaction of the vocational students to the lack of letter grades was mixed. Most students were pleased with the vocational grading; however, a few felt the vocational student ratings were not specific enough, did not provide a challenge to many students, and allowed students to "goof off".

Most vocational students seemed to have at least a general idea of what they planned to do after high school; and, in most cases, it was related to their high school vocational training. Most students said they had not discussed their plans with anyone at the school. Of those that had talked to someone, most had talked to their vocational teachers. Few reported discussing their plans with the guidance counselor. These students did say, however, that they felt free to consult any of the counselors, not just the one specifically designated as the vocational counselor, if they needed assistance. It appeared that the Guidance Department was used much more by college preparatory students for assistance in college selection than it was by vocational students for help in career choices.

Most college preparatory students interviewed seemed to know little about the vocational program. The ones who seemed to know most about the program were those who had been in at least one vocational course. The only reaction that most college preparatory students had was that they knew that the vocational program was for students not going to college, and that they had heard it was a good program. This lack of information was but one symtom of the biggest problems felt by some of the vocational students. While far from unanimous on the subject, many vocational students felt that there was little interaction between students in the vocational and college preparatory programs. These students felt that what contact existed was limited and not harmonious. Vocational students felt that they were "looked down upon" by college preparatory students and not accepted by them. Many vocational students said that they felt completely isolated from the remainder of the school because of either spending the day in a vocational laboratory or leaving school to go to work and not being able to return to participate in extra-curricular activities.

While many vocational and college preparatory students reflected the opinion that vocational and college preparatory students did not get along, others said that this was no longer a problem. They felt this had been a problem in the first years of the program, but was not now. This group of students said that vocational and college preparatory students now get along quite well and have mutual respect for one another.

In summary, the hypotheses that vocational students' attitudes toward school will improve is generally supported by the interviews. Vocational students agreed that the vocational program had helped make school tolerable for them and had provided some preparation for employment. These students generally approved of the vocational grading system. There seemed to be no general consensus on relationships between vocational and college preparatory students.

3. School Attitude Survey - Students: (Tables A-3, A-4, A-5)

1966-67 - Vocational students tended to rate other vocational students higher than did college preparatory students.

1968-69 - Only one change in attitude toward school was statistically significant when analyzed both for degree and direction of change from grade ten to twelve. This change was in vocational girls' ratings of college preparatory students. Vocational girls' ratings increased

significantly from a mean score of 73 in grade ten to a mean of 97 in grade twelve. This change might indicate improved communication between the two groups leading to greater acceptance of the college preparatory students by the vocational girls. An alternative explanation is that this improvement could be the result of greater satisfaction with the vocational program on the part of the vocational girls which would lower their hostility toward the college preparatory girls.

An additional statistical comparison was made on this test since the change in attitude of vocational and college preparatory students toward one another, without regard to some control group, was also considered important. A *t* Test of the difference between the means of vocational students in grade ten versus twelve was made. The same thing was then done with college preparatory students. When the means were compared in this manner, it was found that three of the four groups, i.e., college preparatory boys, vocational girls, and college preparatory girls, rated the students in the vocational program higher in grade twelve than in grade ten. It is difficult to know if this reflects greater acceptance of vocational students within the school or if it is just a reflection of increased maturity on the part of the students.

When one looks at students' ratings of the college preparatory program, vocational girls were the only group to rate college preparatory students significantly higher in grade twelve than ten. The fact that only one group showed significant improvement in its rating of the college preparatory program in which threegroups rated the vocational program significantly higher in grade twelve lend credence to the hypothesis that vocational students' attitudes toward this aspect of school improved over the three years they were tested.

4. JIM Scale (Tables A-3 and A-4):

1966-67 - On the JIM Scale, an instrument to measure motivation toward school, college preparatory students scored higher than vocational students.

1967-68 - College preparatory students continued to score higher on the JIM Scale than did vocational students. Girls in both groups scored higher than their male counterparts.

1968-69 - There were no statistically significant changes in school motivation as measured by the JIM Scale. Thus, the

hypothesis that attitudes toward school as manifested by school motivation will improve is not supported. Vocational students' academic motivation did not improve significantly over the three years that they were tested. In addition, it remained considerable lower than the college preparatory students'.

5. Drop-Outs (Table A-7):

1965-69 - Of the over two hundred (200) students enrolled in the class of 1969 at some time during the four year period, ten (all of whom were enrolled in the vocational program) dropped out of school over the four years. Of this group, six (6) were girls. Of these girls, three (3) were in the vocational program for more than two years, but continued to be severe discipline problems and finally left school. Of the three (3) other girls who dropped out, one left because of chronic health problems, one married, and one left to help at home.

Of the four (4) boys who dropped out, one was in a great deal of trouble with the law at the beginning of the ninth grade and left school by the middle of the first year.

Another of the drop-outs entered Hudson from another school in the middle of his junior year and quit after two months. Of the two remaining boys, one was in the vocational program two years and the other for three years before dropping out because of "age".

One might conclude that students' attitudes were generally positive toward school to the point that an exceptionally low percentage dropped out. To this extent one might conclude that students' attitudes toward the vocational program were satisfactory.

6. Parent Interviews:

1965-69 - In anecdotal comments obtained the first two years of the program and in interviews during the final year, parents were almost unanimous in indicating that their children had a much more positive attitude toward school than before the introduction of the vocational program.

C. Attitude Toward Work

1. Occupational Aspiration Survey (Tables A-2, A-3, A-4)

1965-66 - College preparatory boys expressed considerable higher level of occupational aspiration than vocational boys.

1966-67 - The same differences were evident between vocational and college preparatory boys. In addition, aspirations of college preparatory boys were slightly lower the second year; those of vocational boys were considerably lower.

1967-68 - The occupational aspiration of college preparatory boys continued to be higher than that of vocational boys. The aspiration level of college preparatory boys has remained approximately the same for three years; that of vocational students has gone progressively lower each year.

1968-69 - The occupational aspiration of vocational students did not increase significantly over the four years. Vocational students' scores did increase more than college preparatory students', but the improvement was not enough to be statistically significant. It seems that once a student enters the vocational or college preparatory "track" at the ninth grade level, his aspirations are pretty much "set". One might conclude that the vocational program has had no effect on attitude toward work as manifested by level of occupational aspiration.

2. Vocational Maturity Scale (Tables A-2, A-3, and A-4):

1966-67 - Vocational students had lower scores on the Vocational Development Inventory, Vocational Maturity Scale than did college preparatory students.

1967-68 - Vocational boys scored lowest of all groups on this test. There was little difference between the scores of the other groups. All the groups scored slightly lower this year than last year.

1968-69 - On the Vocational Maturity Scale, the scores of vocational and college preparatory girls were very close both in grades ten and twelve. In grade twelve, scores of both groups of girls were higher than either college preparatory or vocational boys. Both groups' scores increased almost two score points from grade ten to grade twelve. Because of the lack of difference in rate of gain of the various groups, one must conclude that the changes were probably a function of maturity in general, and that the vocational program did not help speed up this process for vocational students. Therefore, the hypothesis that the vocational program will increase students' vocational maturity must be rejected.

3. Interviews:

1965-69 - While instruments assessing level of occupational aspiration and vocational maturity revealed no differences between the experimental and control groups, interviews suggested some change in vocational students. Vocational students exhibited some additional knowledge of the world of work and improved attitudes toward it. First, students indicated that the information gleaned from the introductory vocational skill courses in grades nine and ten was a great help in deciding which vocational course of study to pursue in the last two years. In addition, the courses gave them some accurate insight into several occupational areas. For example, one senior girl indicated that she had wanted to be in the Cosmetology Program in the ninth grade, but changed to Child Care after having experience with it in the introductory course. Based upon the interviews, one may conclude that the introductory vocational skill courses seem quite helpful to students in choosing a vocational course to pursue in grades eleven and twelve.

In addition to changes in attitudes and knowledge that transpired from the introductory vocational skill courses, a second change seems to have taken place in those students who held a regular job or were in a simulated job situation such as Cosmetology. When students assumed the role of worker, many seemed to gain new insights into the world of work. For example, one girl working as a draftsman says that she is an entirely different person since she has been working. She says that she now takes things more seriously and has learned to meet new people more easily.

In summary, in spite of the negative results of the testing, interviews with vocational students suggest that they have learned more about the world of work as a result of the vocational program. In addition, their attitudes toward the world of work appear to be based more on actual experience and accurate information than has been the case prior to the introduction of the vocational program.

Hypothesis III

That, as a result of the vocational program, vocational students' proficiency in the basic academic skills will improve.

Results:

1. Iowa Tests of Educational Development (Table A-1)

   1967-68 - Because of the tremendous amount of time involved in administering the attitude inventories, it was decided to do no achievement beyond that of the regular school program. Consequently, the Class of 1969 was tested in the tenth and eleventh grade, so no conclusions can be drawn about growth in the academic skills area from grade nine to twelve. Eleventh grade scores do indicate, however, that while the intelligence of the vocational students was slightly above average, their achievement was considerably below average. College preparatory students' intelligence and the achievement scores were statistically significantly higher than vocational students'.

   In summary, because of the practical limitations of time, evidence was not collected which adequately answers this hypothesis.

Hypothesis IV

That a vocational education program will be accepted in a primarily college-oriented community.

Results:

1. Financial Report

   1965-69 - The program has received continuing financial support by the local board of education. Each year of the program the school district has increased its proportion of financial support.

2. Curriculum Selection (Table A-7)

   1965-69 - An area which reflects acceptance is curriculum selection. Of two hundred and six (206) students who have been enrolled in the Class of 1969 for at least one semester, seventy-one (71) took at least one vocational course while in attendance. Forty-eight (48) students took all vocational courses for at least one year. Of the approximately thirty (30) students who were primarily vocational students for four years, ten (10) took at least one college preparatory course. A total of thirty-six (36) students combined vocational and college preparatory courses at least once in high school.

   To the extent that voluntary participation indicates acceptance, it appears that the vocational program was favorably regarded by the student body.

3. Family Background

1965-69 - Approximately one-fourth of the students in the vocational program have parents who have attended college. Also, approximately one fourth of the vocational students have a brother or sister who has attended college, which would seem to indicate acceptance of the vocational program by families who are college oriented.

4. Local Scholarships

1965-69 - Since the beginning of the vocational program, about half of the local scholarship assistance has been awarded to students in the vocational or mixed program.

Hypothesis V

That the vocational program will equip each student in the program with either a salable skill upon graduation or with suitable background to go further into technical training.

Results:

1. Follow-up Studies

1967-68 - A telephone follow-up study was conducted in May, 1967. This was done to determine the activities of the Class of 1966 one year after graduation. This was the first graduating class to participate in the vocational program. These students were in the program for only one year.

Results of this study indicated that of twenty-nine (29) vocational students, twenty-one (21) held full-time jobs a year after graduation. Five boys and fourteen girls had either specialized training or on-the-job training after leaving high school.

Of the twenty-two (22) girls taking a mixed course of study, twenty-one (21) had additional education following high school; fourteen (14) of the sixteen (16) boys had such training. Nine (9) boys and seventeen (17) girls in this group had not yet engaged in full-time employment.

Changes In Attitudes of Eighth Grade Students After World of Work Course

Changes in attitudes as a result of the eighth grade World of Work course were assessed in two ways. First, three groups of students were given the ETS Guidance Inquiry Test at the beginning and end of the one semester

2

course. (Table A-8) This test measures students' understanding of key career planning concepts and their ability to apply these concepts.

No control group was available for comparison since the entire eighth grade class was enrolled in the course. Comparisons of students with themselves at the beginning and end of the course produced statistically significant results for all groups tested. This finding implies that this course was helpful to students in increasing their ability to apply appropriate concepts in career planning.

A second, and admittedly less precise attempt to evaluate the course, was made by comparing entering freshman classes for each year on level of occupational aspiration and vocational maturity. If the World of Work Course had had a significant effect on level of occupational aspiration or vocational maturity, one might have expected those students who had had the course to have scored significantly higher than those in previous classes who had not had the course. There was no statistically significant difference between the classes on either measure.

One might conclude that the course is meeting its specific short-range objectives. However, its long-range impact needs further study by more sophisticated techniques.

Case Studies

Six students were selected from the Class of 1969 as representative of the effect which the vocational program had on students. Test scores for each student referred to in the discussion may be found in Table A-10.

Student A

Student A is a senior boy who has been in the vocational program from its inception and is currently studying auto mechanics. He has an extremely heavy workload at home, and, therefore, has had no opportunity to participate in extra-curricular activities at school. He has discussed his post-high school plans with Mrs. Pace. These plans include trying to get a mechanic's job with an automobile dealership after graduation.

When asked about the vocational program, Student A said that he felt he was learning what he wanted to learn and, consequently, did not mind attending school. He felt that he would never have been able to do well in college preparatory classes, but that the vocational courses have been easier for him.

Student A's test scores reveal a boy of average intelligence and aptitude, but below average in academic achievement. His attitude test scores at the beginning of the program show that he is a boy with an exceptionally low opinion of himself. This has

changed little over the period of time he has been in the vocational program. The only real improvement in attitude has been in the area of vocational maturity and rating of other vocational students.

Discussion: For Student A, the vocational program made school bearable and provided him with an occupational goal which he feels he can attain. It appears that little progress was made in improving his self-image.

Student B

Student B is a girl who started in the college preparatory program, changed to all vocational courses except Spanish in grades ten and eleven, but is now entirely in the college preparatory program. She did not take the vocational introductory courses, but took the vocational academic courses.

In her early years, she felt that she was not ready for the pressure of the college preparatory program. She felt that the vocational courses offered a different, more relaxed atmosphere; but one where she learned as much as in the college preparatory courses, and is making progress toward her goal of becoming an elementary teacher.

If she could change the vocational program, she would give letter grades to offer more of a challenge for vocational students. In addition, she feels that there should be less "social distance" between vocational and college preparatory students.

Test scores of Student B depict a girl of slightly above average intelligence, but below average achievement. With the exception of above average scores on clerical perception and numerical aptitude, all of her aptitude scores are average or slightly below average. Her attitude test scores indicate an appreciable improvement from grade nine or ten to grade twelve in levels of occupational aspiration, school motivation, and rating of vocational students. Her ratings of herself declined slightly as did her rating of college preparatory students. Her vocational maturity score increased only slightly.

Discussion: For Student B, the vocational program offered a place to "find herself" away from the rigors of the highly competitive academic curriculum. By being able to take Spanish while in the vocational program, she was able to test her academic ability against that of the college preparatory students without the accompanying pressures of other very demanding academic courses. In turn, she seems to have matured in her ability to choose a realistic goal and do the necessary work to achieve it.

Student C

Student C is a girl who was in the vocational program for four years. She stated that in the ninth grade she wanted to be a nurse, but she learned about cosmetology in the introductory course, liked it, and decided to study it in high school. She is now completing her work in that area and plans to become a beautician upon graduation. She now works part-time in a beauty shop. She is in several school activities, including VICA and Vocational Council. She stated that she liked the vocational grade cards because they indicate specific strengths and weaknesses; she felt that the vocational program had helped her by saving her money, since she has not had to pay the cost of attending a private cosmetology school. In addition, she felt she had learned to converse with patrons as a result of her work with them in the cosmetology lab.

Student C's test scores reveal a girl of average intelligence and below average academic achievement. Her aptitude scores are all average or above with highest scores on spatial, clerical perception, manual and finger dexterity. Student C's scores on all but one test, school motivation, went up from grade nine or ten to grade twelve.

Discussion: Student C might be considered the stereotype of what the program hoped to accomplish. She found an area of occupational interest through the vocational introductory courses, successfully completed the course, and plans to get a job in that area after graduation. In addition, her attitude tests show a general pattern of better self-regard and regard for others.

Student D

Student D is a boy who combined vocational and college preparatory courses for all four years. He stated, however, that he identified more closely with the vocational program. He took the vocational introductory courses, but was not in a vocational training area in grade eleven. Instead, he worked at the local appliance store. In grade twelve, he was in the Diversified Cooperative Training Program working part time at the local telephone company warehouse. He stated that the reason for choosing this job was that it was the only one he could schedule around basketball.

Student D's plans for after high school appeared to be rather confused at the time of the interview. He stated that he would like to be an Air Force pilot, but also said he would like eventually to work in the field of electronics.

He said that he knew he had the ability to do college work, but he was not ready for college because he was not interested in studying.

This student said that without the vocational program, school would have been hard for him. He liked the vocational program because he could immediately apply what he'd learned.

Student D's test scores confirmed his estimate of his abilities. His intelligence and achievement test scores were both above average. All of his aptitude test scores were also average or above. All his attitude test scores except two were actually lower in grade twelve than in grade nine. He did have a one point increase in his vocational maturity score and slight increases in his ratings of both vocational and college preparatory students.

Discussion: Here is a student who was floundering when he entered high school and was still doing so at graduation. He had no definite occupational or educational goal and his high school training did not seem to have been appropriate to assist him in finding a direction. There is little to suggest that high school was more than just "marking time" for this boy.

Student E

Student E is a vocational girl in the Diversified Cooperative Training Program working as a draftsman in a local company. At present, she plans to keep this job after graduation. Her employer has offered her an opportunity to attend Kent State University after graduation for further training. She went through school in three years, skipping grade ten. Last year she was enrolled in the printing program.

For this student, working has had a major impact. She said that she was always a "goof-off" before getting this job, but she now takes things more seriously. She felt that the job had made her much more mature by teaching her what the "outside world" was like.

Student E said that she liked the vocational program and probably wouldn't be in school without it. The grading system was "great" according to this girl. She felt, however, that there was still a great deal of conflict between students in the vocational program and students in the college preparatory program. She also thought that vocational students were discriminated against in activities. She concluded by saying that, if the vocational program ended, dropouts would increase.

The intelligence and achievement test scores of this student were below average. Unfortunately, since she was in grade eight when the Class of 1969 was given the GATB as ninth graders, no aptitude test scores were available. On the attitude tests, Student E's scores on level of occupational aspiration and vocational maturity went down, but the remainder of her scores went up over the period of time she was in the vocational program. She was a student who

was probably kept in school by the vocational program. Efforts by the school to find a job for her where she could use her talents resulted in her finding an area where she could be successful and happy. In addition, the work provided her with an opportunity for further training and speeded up her personal maturation.

Student F

Student F is a vocational boy who transferred to Hudson near the beginning of the ninth grade. He took the introductory courses and found that he liked machine shop, so he was in this program in grades eleven and twelve. In addition to the machine shop training at school, he worked at his father's gas station in the morning and evening and attended school in between. He hopes to eventually become a tool and die man.

In regard to the vocational program, this student said that it made an "unbelievable" difference in him. Before coming to Hudson he was always in trouble. Now he is on the honor roll. He said he would not have made it through school without the program because he liked to work with his hands and couldn't look at books every day. He liked not having the pressure which usually accompanies traditional subjects.

Student F's test scores are those of a boy with average intelligence and entirely low academic achievement. His intelligence, verbal and numerical aptitude scores were below average, the remainder were average or slightly above. Student F's self-concept and level of occupational aspiration, school motivation, and rating of college preparatory students improved over the four years. His vocational maturity score and his rating of vocational students went down.

Discussion: Student F represents a rather dramatic example of change in a student, which, if one accepts what the student said, is almost entirely attributable to the vocational curriculum. When this boy came to Hudson, he was already headed down the path to being a delinquent and school drop-out. Finding something that he liked to do and being able to do it appears to have made him into an exemplary school citizen with definite occupational goals.

CHAPTER V

RECOMMENDATIONS AND CONCLUSIONS

The success or failure of any innovative program can well be determined in the planning stage, or by a variety of developments during the experimental phase. From the learning experiences of the Hudson staff during the four years of the vocational research project many recommendations and some conclusions have evolved which may smooth the way for future planners in this educational field.

Planning and Operation

Evaluation of the needs of your own school and community must include real depth of study and understanding. Those involved will include students, faculty, administration, community business men, educational resource people, concerned legislators and educational officials at county and state level.

As the trend grows toward cooperative or jointure arrangements for vocational training facilities, small schools find it financially impossible to be autonomous. Therefore, working with neighboring schools in the planning stages may avoid duplication of effort and will broaden the program for more students.

Most high school students do not have the background of experience or knowledge to make an informed choice of career training. Providing exposure to the world of work during the pre-high school years is, therefore, almost a prerequisite to vocational training. The nature and timing of such orientation depends on the school system, but we have found that the year before entering high school and prior to selection of a course "track" provides the best solution. For a school anticipating a high proportion of students in non-college preparatory courses, the ninth grade Vocational Information course may prove more efficient. Curriculum outlines for this and the World of Work course appear in Appendix A of this report.

Another imperative for planners is thorough familiarity with State educational regulations and controls. Since every state differs in its approach to vocational training, it is advisable to be well informed of the requirements and the availability of advisory and financial help. Ohio has a system of making such assistance available through State University branches, which also provide special certification training for trade instructors.

Clear definition should be made for the administration of the various aspects of an innovative program. Coordination of instructional procedures, liaison work with government departments, public relations and supervision of research are all time consuming. Our most successful

operation was achieved with a team approach. The director of the program (also the high school principal) maintained control over the ongoing activities as they were coordinated with total school operation. The program supervisor, the work coordinator and a guidance counselor worked as a very close team. Their responsibilities were constantly touching and over-lapping, but because of frequent short meetings, duplication and the problems which result from poor communication were kept to a minimum.

This brings us to a discussion of three suggestions on the choice of personnel for a new program.

1. If possible, make use of teachers who have shown by their interest in the planning phase, a real desire to take part in the operation of the program. Assigning a teacher to a new program because it fits his schedule or because he wants a change is seldom successful. Staff members whose teaching is student rather than subject oriented, and who have been innovative in classroom methods, can make the transition to flexibility and experimentation more easily.

2. Provide pre-service and in-service training for the chosen staff, to allow frequent exchange of ideas and to establish and maintain a philosophy of operation. This should be a continuing provision to allow periodic evaluation, the sharing of successful techniques and the chance to discuss and eliminate ideas or courses which are not working as planned.

   The frequent vocational staff meetings scheduled in the Hudson program have proved a strength and a source of healthy growth and change. Unfortunately, staff changes (brought about by personnel leaving for degree advancement work or moves to administrative positions) presented a problem which had not been anticipated. The excellent pre-service training provided in the summer before the program started, could not be duplicated each year, and some new teachers came into the "action" without a thorough indoctrination.

3. If research and evaluation of data are part of the program, the research personnel should be closely involved in the day-by-day operation of the experiment. Although the research men on the Hudson project were ideally prepared for their job by early involvement and good knowledge of the school and community, their distance from the school made frequent visits impractical. If possible, such personnel should either be members of the full-time staff at the school, or easily available from an adjacent university.

It is inevitable that changes in curriculum will be advisable as student needs change, or a new course seems advisable. Such changes and additions should be studied from several angles. Will the new course serve a definite purpose, and not be just a time filler? Will it supplement rather than duplicate existing offerings? Will it provide an effective link with the outside world? Is the instructor sensitive to the needs of, and can he relate to academically disinterested teenagers?

In the changing times which face us today, we must listen to the young, and adjust our thinking and actions wisely. We may have erred in the direction of too much leniency and too complete acquiescence to the opinions and desires of the young in the early phase of the experiment, but the trend is toward firmer control with no less understanding and consideration.

Recommendations

1. Continuation and expansion of the introductory skill courses for ninth and tenth graders is desirable. The number and variety of skill training possibilities provide the soundest basis for informed choice. Since vocational students must make this choice before eleventh grade, uncertainty and unhappiness can be avoided by wide experience.

2. The World of Work orientation course has proved more valuable at eighth grade level, where it reaches all students, than for the vocational students only in ninth grade. There should be a closer relationship between this course and the process of guiding parents and students into high school scheduling.

3. At the present time, the cooperative exchange programs being promoted among neighboring schools in the Summit County area seems economically sound. Sharing existing facilities in four or five schools avoids duplication and solves student number problems.

4. The ungraded evaluation of the non-college preparatory students has proved popular with most students and their parents. This system is more relevant to the nature of courses and future goals of the vocational students.

5. Direct contact with parents has been a mutually strengthening force in the Vocational Program. Scheduled conferences between parents and teachers will continue once a year with a follow-up in certain cases.

6. The problem of divisions between students and faculty in the vocational and college preparatory courses remains a concern. Deliberate efforts to fuse dichotomous groups may have, in the

opinion of many students, widened the breach. It continues to be important to develop respect and understanding and to emphasize that the two programs represent difference of direction and goals rather than levels of ability and social status.

Conclusion

As mentioned earlier in this report, it is dangerous and misleading to generalize on changes shown in a group of students. We are interested in individuals, and in the improvements in self-concept, attitudes toward school, work and other people which may have resulted from some aspect of the Vocational Program. Evidence of such changes can be seen in many students who have completed the program, and in others who left the program for jobs or military service. Many of the latter have returned to express appreciation for some aspect of their high school experience - an instructor, a counselor, or a particular course. A great number of such evaluations have come out of the comments on the follow-up questionnaires reported in Appendix E.

The previous chapter on research results gives the conclusions reached from the data collected over a four year period. One of the most important findings relates to the hypothesis on attitudes toward school. For the majority of non-college preparatory students, the introduction of the Vocational Program created a learning-by-doing environment rather than one which was book oriented. Usefulness and timeliness of material presented, concern for individual interests, and better student-teacher rapport were found in the new curriculum. Certainly this apparent shift from negative tolerance or outright rejection to enthusiasm and satisfaction is proof of success.

Although students showed no appreciable gains in level of occupational aspiration over the four years, the data does show that the Vocational Information and introductory skill courses provided basic knowledge of the world of work and were helpful in making decisions for vocational training in the final two years of high school and post school vocations. Many found their greatest growth and motivation toward better school effort through first-hand work experience.

The philosophy upon which our whole program is built is the directing of the individual toward his most satisfying and suitable goals. No two people need or want exactly the same training, and even our small effort has shown that flexibility and sensitivity to the need for a change can be highly successful.

APPENDIXES

APPENDIX A

CURRICULUM

Introduction

Since many of the courses offered in the vocational curriculum are subject to observation and suggestion of content by the State Department of Vocational Education, detailed description would have little value to other schools, which have similar programs.

The way in which the material is taught, and the relationships established between teacher and student, create the innovation, "color" and effectiveness. These aspects - the philosophy in operation - have been conveyed in the curriculum discussion in Chapter III.

Therefore, it is only the courses which are either original in nature or especially innovative in materials or approach, which are presented in detail in this section. Outlines of all courses included in the curriculum have appeared in Annual Reports since 1965, and are available to anyone upon request.

The academic courses which have made the greatest impact on vocational students are in the English Department. A thorough discussion of the content and methods follows. Some of the techniques and student approaches have been applied to other disciplines, but for total change and effectiveness, English provides the best example.

Another course which has achieved remarkable results is the Child Care Unit. This started as an offering in the Vocational Introductory short courses in the Home Economics Department. Because of its popularity, it grew to a unit offering for juniors and seniors. Taught in the realistic setting of a Nursery School operated in the high school building, the training prepares girls and boys (with whom it is becoming popular) for future family responsibilities, and for jobs in a variety of fields. The seniors gain additional experience in community placements.

An outline of the Vocational Information course is included, although it has been replaced by the World of Work course for all eighth graders. The rationale for this change is discussed in the curriculum section of Chapter III. Both courses have motivating value and student appeal, and could be used as school needs dictate.

The Vocational Psychology course, as discussed in Chapter III, has served a variety of purposes. In the first years of our experiment, it provided a broad orientation for upper classmen who had not been exposed to the World of Work or Vocational Information courses. Since then it has

changed in nature somewhat, and has attracted a large number of college preparatory students, for whom this practical course is an enriching offering.

Suggested texts and materials for courses in the vocational curriculum appear as the final section of Appendix A.

ENGLISH

Philosophy

Learning means changing. If we learn, we can't avoid changing our attitudes, our skills, our concept of ourselves and of life in general.

Before we can change, we must have an attitude of openness. We have to either want to make the change, or at least see no reason why we shouldn't change. To be open, we need to have a strong concept of self or ego-strength.

We can't be open (we can't learn) while under a threat. The girl whose date takes her miles to a good spaghetti house may order a hamburger; not because she prefers it, but because she isn't sure how to eat spaghetti. There is no openness and no learning because of the threat of social embarrassment. That same threat may cause a high school boy to avoid reading aloud in class (or to avoid going to class at all).

Add the threat of academic failure to the threat of social embarrassment and the student may not have enough openness to change (that is, to learn) at all.

Our job is to remove threats and replace them with real satisfactions and genuine interests. We want to build a history of success rather than failure as the basis for each student's self-concept. We want him to build a pattern of self-expectation that will make him accept nothing less than his best previous effort.

Getting the student to change required three major approaches to be used by the teacher.

The teacher must care about the individual he is teaching. There is no substitute. We can't pretend. We may fool ourselves, but we can't fool the students. They react to superficial concern long before they can identify it even to themselves. We easily recognize that students care most about those who are most like themselves. We are no different. The cure may be to concentrate on the basic human qualities which are common to us all.

If we assume that we are to eliminate threats, we must avoid the threat of personal rejection by the teacher. If we care, we must accept the student. That includes accepting his clothes, his hair, his music, his whole present way of life. We need not choose the same things for ourselves. We would be dishonest if we did so just to get to the student. Instead, we must show him that we accept his human qualities regardless of the current status of his personal affairs.

Accepting is not being overly permissive nor is it condoning actions or attitudes which we recognize as anti-social. Accepting is working with the person as he is to get him to learn, to change.

Since learning depends on such factors as readiness and attitude, the change may be a long time coming. We need to have the patience to wait for the change. Even if the student does not develop good attitudes and intellectual curiosity until several years after graduation, we will have won.

The methods we use to teach language skills must excite the student. Sacred cows must go. The student is concerned with himself, here - now. Any topic for study should be related to that concern. Our methods should be guided by variety, realism, and brevity.

Materials we use also should apply directly to the student and his present condition. A standard textbook approach should be replaced in most cases. Current publications, modern literature , and teacher-made materials are often the best sources we have. Our materials can be chosen then by these standards: they must be new, short, meaningful, and honest.

English 9

English teaching is broken into four parts in our courses for grades nine, ten and eleven. They are language, literature, composition, and speech. Four days each week are for language, literature, and composition. One day is given entirely to speech activities. While we do have required oral and written reports and study guides to be finished, there are no quizzes, tests, or exams.

Language:

In the ninth grade students are given extensive and intensive work on word flow. They are bombarded with experiences with words in all forms. The emphasis at this grade is on getting the student to feel comfortable and confident with language situations. Every effort is made to avoid pointing out "wrong" language use, particularly in the first semester. This is the start of the pattern of success.

Techniques include word association games and exercises, word flow exercises, practice in listing rhyme words, synonyms, antonyms, etc.

Literature:

The pre-vocational student often is a poor reader. This does not mean that literature is less important. Literature should be the most important part of his language experience. We must be careful to use words with which the student can be successful. Writing techniques and literary devices take second place to getting enjoyment from the literature. Basic human qualities should be emphasized. In many cases, the dialect in which the book is written is examined as appropriate or effective or both. The student should get excited about the book or at least should admit that it wasn't too bad.

Paperbacks are the main source used since they are more modern and attractive than the existing anthologies. Also, they allow more chance for individualizing assignments.

Composition:

In the ninth grade students begin to work with probably the most popular and effective technique used in all four grades. "The Log" is a daily journal kept by each student. We use a commercially prepared student plan book. It is available in the student council supply store, has heavy covers and heavyweight pages marked off in squares to represent days of the week and class periods.

The log is confidential. Students are required to report what was done in each day's English class and to comment on what was done. The log is turned in to the teacher once each week and is returned the next day. It is not "graded". The teacher reads the remarks and writes in his own comments. Here again, we are honest but positive. The student is urged to "keep talking". Fluency and openness are more important than "correctness" of spelling, usage, etc.

No other technique in our course gives more effective individualizing. In his log the student tells the teacher when the class "stunk", when it was "OK", and when it was "kinda good for a change". A personal counseling goes on in many cases when the student opens up to the teacher and begins to articulate those emotional limitations which have been blocking his learning. That articulation is the real victory on the road to the student's use of language for self-realization and self-expression.

The log also creates involvement. For non-academically oriented students who do not abstract well (and so don't "see the point" of weeks of lecture periods) the log creates a concrete listing of class progress. The student thus builds a self-concept as a doer. Hopefully

he will develop a pattern of success and learn to expect from himself nothing less than a good try.

We recommend that you:

1. Make sure the log is brought to class daily with a pencil.

2. Help students be proud of their log by using it as a journal and scrapbook. Include newspaper articles, copying a poem they like, addresses, a quotation, essay questions, thoughts of the day, frustrations, interesting movie they saw, pictures, etc.

3. Answer all questions in a <u>non-directive</u> way if possible, encourage good, careful writing, etc.

4. Meet with students who are doing poor logs and show them how to improve them.

In the ninth grade we do much work on developing perceptions. Writing assignments are, of course, short and related to concrete experience. All writing except the log is done in class.

Mounted pictures cut from magazines are used in many ways. They are the basis for personal narrative, sensory description, dialect comparison, etc.

Writing about junk is a student favorite. Students help collect junk such as combination lock tumblers, electronic parts, and even the business end of a milking machine hose. The pieces are distributed and the assignment is made. The physical presence of the object helps to give concreteness to the job, but it is still best to give "starter sentences" or phrases. "If I had been looking for it I never could have found it" gives the student's narrative description a start that he might not have been able to make on his own.

Other composition techniques for developing perceptions and using language to express them include use of records or live music for actions and moods evoked by music; use of colored lights to create emotional moods; use of smells (gasoline, perfume, ammonia, etc.) for vocabulary development and character and mood description; and use of drama club student to provide action for eye-witness accounts.

<u>Speech</u>:

Ninth graders begin the speech study that is carried through grade eleven. We have a Friday Meeting. There is an assigned Toastmaster who introduces all speakers including one or several main speakers, and a grievance chairman reports to the teacher (management

representative) any written complaints or suggestions turned into him during the week. The teacher investigates and gives an answer by the next meeting day. This part of the Friday Meeting helps the student "take part" in school, even if it is often through complaints. Main speakers give speeches of anecdote; speeches to convince, entertain, inform; and speeches of demonstration.

Grievance sessions dominated the Friday Meetings during our first year. During the second and third years, however, grievances became fewer until many students were expressing boredom with the sessions and several classes chose to eliminate them from the Friday Meeting agendas. We estimate that these sessions provided such a satisfactory outlet for gripes that the students no longer felt a need for time to air their grievances. Also, the nature of the complaints changed markedly. At first, students were almost totally negative, complaining of real and imagined restrictions. Later, most of the grievances involved requests for new reading materials, more field trips, etc. Based on this obviously limited experience, we assume that the opportunity to gripe officially did, along with other approaches, change the students' attitudes toward school.

Other recommendations on the Friday Meeting plan are:

1. Change the name "Speech Day" to a name the class votes on. The word "speech" has too many bad connotations.

2. No speeches over three minutes.

3. The teacher should always give an example (set example and boost student confidence).

4. Work with individuals to insure a responsible toastmaster.

Emphasis for ninth grade speech is on the simple principles of volume, clarity, rate, posture, and eye contact. Most important is the feeling of confidence and success from having done the job.

<u>English 10</u>

Grade nine was largely given to getting openness and word flow. Naturally, this word flow is somewhat unorganized. Our effort then in grade ten is to build in the sense of organization.

<u>Language</u>:

Vocabulary is studied from the viewpoint of words belonging in patterns of all types. Just as oak, root, and lumber all have to do with trees, each word has a category of meaning into which it belongs. List of words are categorized.

Spelling is taught through both inductive programmed materials (the student "make up" the rule that applies to a set of sample words) and through examination of confusing pairs.

Games are used again. Students make illustrations showing words which physically look like the meaning (short, long, tall).

Scrambled sentences and paragraphs are untangled.

Worksheets are used once or twice a week. They should be varied, relevant, and interesting. The worksheets that are examples of success are:

a. Word scrambles
b. Name-Game
c. Word Flow
d. Analogies
e. Grammar
f. Crosswords
g. Reasoning skills

Recommendations:

1. The worksheets are best used on Monday morning as an "eye opener".

2. They should be evaluated in class.

3. Help individuals. There are many students who don't understand directions.

4. Let them work in teams of two once in a while.

5. Do a few as examples.

6. Avoid long worksheets.

Literature:

As in the college prep curriculum, the literature emphasis is on drama. We started the year with a group reading of Anthem. The aim was to explore the term "ego" and give it some meaning to the students.

The most effective use of the drama included checking the play schedules of area theaters, ordering books including certain suitable plays being produced locally, reading the book as a class project, discussing it, and finally going to see the play.

To individualize the experience of drama, the teacher helped students to become "experts" in specific areas of technical theater or play production. The students collected files on makeup, publicity, stagecraft, lighting, costuming, and acting. Many in-class work sessions were devoted to individual guidance on a project basis. Guest speakers came in to talk about scenery, costuming, etc. One major field trip was taken to Kent State University for a tour of the theater facilities. Later, the students attended a play there to see the finished product done in the facilities with which they were now familiar. (It is recommended that field trips to theaters be made to educational theaters such as a nearby university or college. The college students or faculty members who conduct the tours, etc. are more effective because they are concerned with educational theater and emphasize the things which the high school students want to know and should know.)

In some cases, students in our school were used to make presentations to the class. One need not be an adult to be an expert.

The novel "The Diary of Anne Frank" was used with varied success, probably because it has different meaning for boys and for girls. One recommendation is that the play version be used instead of the novel. This would fit more appropriately with the drama emphasis in the tenth grade. Class use of plays has been successful. A paperback edition of three American family comedies has been used successfully. Of the three plays, "Life With Father" and "I Remember Mama" were well accepted.

Recommendations regarding drama are:

1. Give these young people a chance to see a real live production. This would spark enthusiasm.

2. Don't drag a play out or you have lost them.

3. Encourage group responsibility and inflate egos at times.

4. Build up a collection of motivating one-act plays on file. Choose parts in advance if done in class.

Panel discussions didn't work well in the tenth grade classes. The organization of taking notes on three by five cards and using various references bogged them down. Many rested the responsibility on others in the panel. They chose the subject they liked, but didn't like who they were working with. Also, they didn't like the idea that they had to present their material for one class period. Panel moderators did not assume their responsibilities as leaders. The only successful aspect was the interesting subjects - child beating,

suicide, capital punishment, teenage morality, UFO'S, fads, parental control, drugs, etc.

Recommendations regarding panel discussions:

1. Have all or most materials in the room because almost all my students dislike the high school library intensely.

2. Use later in the school year as they develop more responsibility and knowledge.

3. Help them and make the assignment less of a chore.

4. Develop and show importance of organization.

Paperback editions of novels and short stories and teacher duplicated poems are used to give experience with all forms of literature. Newspaper and magazine editorials provide good examples of modern essays.

As in other parts of English 10, the organization of selections is pointed out. However, the main point is that the student see human values in literature and have success in reading. A student has his choice of more than three hundred paperbacks which he may borrow from the classroom.

Recommendations on a reading program include:

1. Books should be displayed on a drug store spinning rack rather than stashed in a closed closet.

2. Students should be asked to bring paperbacks from home that are no longer needed and a fund should be provided for paperbacks that are requested during the year.

3. A day should be set aside each week for free reading. Also there might be oral reports, general discussion, etc. TALK BOOKS UP! ! ! !

4. The latest books of interest to students should be available.

<u>Reports</u>:

Magazine and newspaper reports are a good idea because the students enjoy doing them and they can be done easily in the school. All kinds of magazines are used with most of the magazines being brought into the room and used there. Free reading is done on certain days and when the student wants to make a report, he simply fills in a half sheet of paper and submits this report to the teacher. It gives

the name of the magazine, date, length of the article, title of the article, student summary and reaction.

Recommendations on reports include:

1. Have students replace worn-out magazines.

2. Encourage variety.

3. If a student finds an excellent article, he can expose others to it by putting name and page number of article on a recommendation sheet.

Prejudice Unit:

The Scholastic Prejudice Unit purchased on my request worked well this year. I used it in vocational nine and ten, but got better results with the latter. A mixture of plays, stories, records, some visual aids, and discussion questions provides variety and makes the unit come alive. The greatest difficulty in teaching this three to eight week unit is breaking down the student's prejudices and begin the name-calling bit of minority groups. Be sure to use many examples and discuss carefully the differences between dislikes, misconceptions, and prejudices. Along with this unit we brought in older students to tell of their experiences in the Cleveland ghetto.

We also showed a two day filmstrip called "Growing Up Black" by Warren Schoat Publishers. It is one of the best filmstrips we have used. The classes liked it.

One paragraph writing jobs were used in connection with this assignment.

Composition:

As in English nine, the student log or daily journal is a major writing experience. Through encouraging remarks rather than failing grades, the teacher directs the individual student to develop his writing ability according to the skills and understandings of that student.

Our writing program was geared to developing a skill in using expressive words, phrases, and sentences to give a picture. This free expression of emotion requires that the students get personally involved. They are led to react and then express that reaction. They are made to feel angry, or sad, etc. and then are asked to relate that feeling in words. Experiences are planned to allow the students to examine emotions and verbalize about the whole emotion - such as love, hate, death, fear.

One of the best writing springboards used was the chapter in "Up The Down Staircase" in which the characters in the book wrote about a cockroach, etc. The chapter was read aloud in class, followed by a period of discussion to review the emotions the people in the book expressed. After sharing the ideas, students were asked to express a similar emotion or reaction in one sentence or one paragraph samples.

Writing was approached from the standpoint of free expression and mood creation rather than from the viewpoint of style or form. The teacher assumed that somewhere in each student is a natural sense of rhythm and if the right mood can be created that sense will show up. This kind of unit is successful depending on the nature of the class. If natural expression has been discouraged by repeated failures it will take all year to elicit the necessary responses to make this kind of writing effective. Even so, it may be worth taking all year.

Some writing jobs included use of the Readers' Digest first person award articles and the "My Favorite Character" series as stimulants to first person writing jobs. The first person was emphasized so that the students would think of themselves and their relation to the world first.

On the subject of first person: a teacher can't teach them in the third person if they are thinking in the first person. The teacher must be able to relate to the topic personally. A lady can't do a good job on a war book when she has no real direct or vicarious experience.

One class had an exceptionally good experience with a two week unit on writing poetry. Writing was not limited to set styles of poetry but emphasis was on self expression. The class first talked over communicating through lyrics of songs. They examined whether the thought fit the meter and they discussed the depth of the thought as appropriate to the general tone of the lyric. Next, two days were spent in reading poetry and talking about reactions to it.

A particularly effective assignment involved John Milton's poem "On His Blindness". Their first job was to relate the title to what he was saying. The result was that the students brought up the many ways in which man can be "blind". Then they went to the library to find information on Milton the man to judge for themselves if their interpretations could have been accurate. It is important to notice that the students ultimately felt that their original interpretations were "right".

Some recommendations on tenth grade writing are:

1. Guide them through the writing process.

2. Work with those that say they can't write.

3. Use meaningful writing assignments.

4. Stay with the one-paragraph development.

5. Purchase some visual aid materials.

6. Be creative and use a "fun approach".

Speech:

The Friday Meeting plan is used in the tenth grade. More use is made of the problem of organizing facts for presentation. Longer speeches are made and use of emotional connotation words is stressed with TV commercials used as models.

English 11

We assume that by the eleventh grade our students are learning to verbalize and to organize. If we have developed a pattern of success, the students should now be ready to focus on the world around them with greater clarity and objectivity. The language approach in the eleventh grade is aimed at having the student evaluate society - and that includes himself.

Language:

Phony language and stuffed shirts are our targets. Oral, written, and recorded materials aim at freeing the student's writing from the pretentiousness found in "official" language.

Students are taught to use brevity and directness. Euphemisms, gobbledygook, jargon, tautology, etc. are examined and corrected. Actual business letters and, in some cases, school publications are rewritten in plain language.

Short exercises, which allow a student to do one to three "jobs" in a class period, include writing bulletin board notices for an industrial plant, and writing letters of sympathy to an employee who has lost his wife. These writing "jobs" are all teacher-made.

The history and the future of language are explored in more depth. The aim is to help each student develop a philosophy of language and what it can do for him socially and economically.

Changes and Recommendations:

As might have been expected, some materials and projects didn't work. A seven-booth listening lab operation failed probably because of the

teacher's inability to make enough home-made tapes or to find appropriate commercial tapes. Also, the equipment supplied turned out to be too complex for students and teachers to operate efficiently. Tapes made from TV specials on language and literature were most popular as were some tapes of literature readings. We tried to make up tapes to teach language usage and couple that with teacher-made worksheets, but the preparation took so long that no organized system of tape teaching developed. We think that this technique has much possibility, but the teachers must have simple equipment and time to develop a program that can be built into the English curriculum.

Literature:

Contemporary nonfiction and American literature are emphasized in the eleventh grade. Developing social conscience is a major theme. The outcast or the victim of injustice is looked at sympathetically and critically.

For example, "My Shadow Ran Fast", the story of former San Quentin inmate Bill Sands is used in paperback as the basic text for an individual reading and research project into rehabilitation of criminals and social responsibility. The library is used as the source of periodicals and extra books. Each student or group makes a written and an oral report on the project. Local authorities come to the school for discussions with the class.

Paperbacks and library books are the sole sources of materials. We have no anthology. Most reading follows individual interests or individual choice within a general topic. We start with a modern work and work back into older but significant literature on the same theme. Not more than one book per year is used as a unison assignment. Two days a week were used as Work Days. Students worked on individual reading jobs, wrote in their logs or worked with the teacher to choose a new job or evaluate a recently completed book.

The personal journal or log explained in the ninth and tenth grade sections is used in the eleventh grade also.

Other composition work includes the short assignments mentioned in the eleventh grade language section and the written reports required in eleventh grade literature.

Brevity and directness are emphasized. Tact and emotional perception are stressed in those writings in which they are appropriate.

Speech:

The Friday Meeting is used here too. The speeches are longer and symposiums and debates are used more often. The emphasis is on

directness and brevity of expression and on the use of logic and propaganda devices.

Research reports and book discussions in a roundtable situation are also part of the speech program for eleventh graders.

English 12

Senior English is a one semester course. The emphasis is on using literature as a source of self-knowledge. Both modern and classic works are used. There is no text. Appropriate paperbacks and duplicated works are used. Sometimes we borrow books from the college preparatory classes to read a certain selection. We do not, however, use cast-off or outdated college preparatory texts.

A collective biography met with such lack of enthusiasm that we dropped it after reading less than half the book. A collection of Greek plays was so popular that we read and discussed three plays instead of the scheduled one. (We also saw a Greek play produced at a nearby university).

The themes of love, marriage, fidelity, morality, and human dignity are vitally important to these students and literature selections are chosen for their pertinence to these themes.

Senior English is taught as a terminal course and much is made of the student's need to set standards for selection so that he can find the right literature for his personal reading. Since the effect of the work on the individual reader is a main emphasis, having the class and the teacher read the same work for the first time can be effective. The exchange of reactions and ideas can draw the class closely together. The teacher's role is to help show relationships between the work being read and other literary sources both old and new.

Difficulties in Teaching Senior Vocational English Include:

1. Teaching one book to the whole class at once. ("In Cold Blood" worked once in three tries.)

2. Teaching longer works (i.e. those that would take about 25 minutes or longer to read.)

3. Independent study has so far proved totally absent because the teacher has been unable to find a suitable method.

4. Continuity is difficult to get because units often degenerate into fragmented classes with one class having little to do with the classes of the previous day, week, month.

Strength Of The Course Can Be Found In:

1. Short films demanding interpretation through observation and perception (e.g. Parable, The Hat, Clay, etc.).

2. Contemporary culture including magazines of all kinds from "Playboy" to "Motor Trend" to "Cosmopolitan", phonograph records, videotapes, audiotapes, etc. can be a study in itself - we think it should be; it's viable and can serve as the beginning of other units.

3. Writing topics which are relevant. An "Advice to Parents" assignment was the most successful.

4. Discussion techniques which are basically non-directive are most successful.

Other Recommendations Are:

1. The teacher chosen to teach Vocational English should be comfortable in contemporary youth culture. Better, he needs to be unafraid and accepting of it. The teacher must be open to accepting vocational students as he finds them. The changes (education) he tries to effect should be open, too, letting or encouraging students to make their own decisions.

2. Teachers should have great ego strength. Some bizarre personal behavior will surface when dealing on the emotion level with students who may be significantly immature and, therefore, misunderstand and misinterpret the behavior of the sympathetic, compassionate teacher.

English Materials

Paperbacks replaced standard anthologies in the vocational English curriculum. Here is a list of some of the titles we used as mass assignments during the four year experiment period. Literally hundreds of other paperbacks were available from the classroom collection and others were on sale at the school paperback bookstore.

Ninth Grade:

Shane, Jake Schoeffer
Animal Farm, George Orwell
A Night To Remember, Walter Lord

Tenth Grade:

West Side Story, Max Schulman

The Diary Of A Young Girl, Anne Frank
All Quiet On The Western Front, Erich Maria Remarque

Eleventh Grade:

Lord Of The Flies, William Golding
The Ox-Bow Incident, Walter Van Tilbury Clark
My Shadow Ran Fast, Bill Sands

Twelfth Grade:

The Moon Is Down, John Steinbeck
An Anthology of Greek Drama
Profiles In Courage, John F. Kennedy
The Art Of Loving, Erich Fromm
In Cold Blood, Truman Capote
Fahrenheit 451, Ray Bradbury

Filmstrips and Films

Three filmstrips from Eyegate Filmstrips of Jamaica, New York were the best ones used in vocational English. Ninth graders used "The Fundamentals of Thinking", while eleventh graders saw "What to Look For in Drama and Fiction" and "Writing and Printing in America".

Many of our movies were seen by more than one class since it was difficult to get films often. Although the films we list here are not identified by distributor, etc., they should be found readily in the catalogs of most major libraries or universities. "Teaching" films were used rarely. Most films were either of the discussion-provoking or sense-stimulating types and were used for class discussion and as stimuli for writing assignments.

The Red Kite
The Orange and Blue
The Red Balloon
Paul Lawrence Dunbar
Sixteen in Webster Grove
Cars In Your Life
Blessing On The Woods
The House of Man
Pigs
An Occurrence at Owl Creek Bridge

The unit approach was used often in vocational English twelve. Some units and the materials used in conjunction with the unit are listed here.

Negative Aspects of Man:

The Investigation by Peter Weiss (several scenes from the play).

Night and Fog (movie on responsibility for concentration camps.)

A Time Out of War (movie adapted from the short story. Two yankees and a confederate take time out from shooting at each other.)

The Fish Cheer, etc. (record by Country Joe and the Fish)

Alice's Restaurant (record by Arlo Guthrie)

A Lincoln Portrait (record by Aaron Copland)

Harvest of Shame (movie featuring Edward R. Murrow on migrant workers)

Christmas in Appalachia (movie on poverty by CBS)

War poetry (e.g. Amy Lowell, Wilfred Owen, Karl Shapiro, W. B. Yeats, etc.)

Motel by Jean-Claude von Itallie (one act play from America Hurrah)

Positive Aspects of Man:

Selections from Henry David Thoreau

Selections from Mark Twain

Mark Twain Tonight (record by Hal Holbrook)

Humor records (e.g. Bill Cosby)

TV and Movies Compared as Media:

Mission: Impossible (videotape)

Tempest (movie, experimental, showing movement and change in colors based on chord structure of accompanying music)

Lonely Boy (movie satirizing Paul Anka)

Love:

Excerpts from Who's Afraid of Virginia Woolf (including sound-track record) by Edward Albee

The Art of Loving by Erich Fromm

On Being an American Parent (Time Magazine essay)

The Importance of Being Dad (by Dr. Robert Kirkhart, consultant clinical psychologist to the school)

Parable (movie depicting Jesus as a clown today)

The Present And The Future:

The Wayfarer, by Robert Cooper (short story in New American Review #2)

Hair (record by original cast of the musical)

The Hair Boys by Tom Wolfe

The Mild Ones by Tom Wolfe

Streetfight Etiquette by Tom Wolfe

Excerpts from Eric Hoffer's works.

Sixteen in Webster Grove (movie on life in an affluent suburb)

Programmed instruction failed almost completely. We think it was because of lack of motivation and the students' apparent inability to work along for long periods on basic skill materials which had little or no immediate practical application.

During the first year of the experiment the juniors spent three days per week in the English classroom and two days in the Reading Laboratory. This plan was dropped. Students felt (wrongly) that they were being treated as "dummies" and were being given a remedial course. The damage to their attitude and self-concept was greater than the gain from specialized reading instruction.

Eleventh and twelfth grade students had a choice during the fourth year of the experiment to take additional short English courses. The Hudson English curriculum was adjusted to provide over twenty (20) nine-week short courses to be taken at the option of the student. These short courses covered speech, writing, literature and thematic units.

FAMILY LIVING

Major Objectives:

1. As a teacher, to guide the direction of the course toward covering all areas related to living in society, with major emphasis on the family.

2. To encourage students to be responsible for developing the content of the course with the teacher rather than expecting the teacher to present material, bibliography and topics to the student.

3. Provide a class atmosphere where students feel free to discuss any topic.

4. To encourage students to learn for the sake of learning rather than for grades.

Introduction:

Definition of family.
Structure of personality.
Self concept.

Development of Topics And Issues:

A. A Basis For Sex Morality:
(six film strips)

Topics:

1. Love, Friendship and Marriage
2. Nature of Sex
3. The Man-Woman Relationship
4. Premarital Relationship
5. Rationalizing Sex Behavior
6. Guidelines For Sex Behavior

B. Building a Family:

1. Courtship and dating.
2. Pre-marital counseling:
   a. Psychological
   b. Physiological
   c. Theological
3. Wedding plans.
4. Marriage.

C. General:

1. Characteristics
2. Building a balanced personality.
3. Abnormal behavior and help available.

   a. Neuroses
   b. Psychoses
   c. Psychotheraphy
   d. Psychologist
   e. Psychiatrist
   f. Masochism
   g. Homosexuality
   h. Infantilism
   i. L.S.D.
   j. Brain damage

4. Problems of divorce:

   a. Effect on children
   b. Causes of divorce
   c. Reasons for divorce

5. Family financing:

   a. Building a budget
   b. Wife working
   c. Future income planning

6. Psychological tests:

   a. Reasons for
   b. Value of

7. Abortion:

   a. Pros and cons to legalizing
   b. Psychological aspects of
   c. Black market

8. Birth control:

   a. Viewpoints
   b. Kinds of

9. Effect of illness on home.

10. Drug addiction - physical and mental.

11. Psychedelics.

12. Alcoholism

D. Understanding Maleness and Femaleness:

1. Absent father syndrome
2. Passive resistance
3. Acting out
4. Roles people play:

a. Husband
b. Father
c. Son
d. Occupational
e. Personal friends

Male

f. Wife
g. Mother
h. Daughter
i. Occupational

Female

5. Mixed marriages - Pro and Con:

a. Race
b. Creed - religion

6. Marriage clinics
7. Suicide
8. Manic depressive
9. Paranoia
10. Recognition of mental illness:

a. What to do

11. Importance of education:

a. For parents
b. For children

12. Marriage vows:

a. Types of marriages

13. Child Problems:

a. Shyness
b. Introvert
c. Extrovert

d. Underachiever
e. Bully

14. Signs of child and adolescent problems
15. Characteristics of normal personality
16. Various aspects of man-woman relationship:

    a. In marriage
    b. Outside of marriage

17. Jealousy
18. Promiscuity in and out of marriage
19. Elements of good inter-personal relationships
20. Meaning of "Oneness" in marriage:

    a. Individuality
    b. Dependency

21. Basics needed for good personal relationships:

    a. Trust
    b. Honesty
    c. Willingness to communicate
    d. Openness
    e. Pursuit of other person's happiness
    f. Unselfishness
    g. Carry one's own load
    h. Self evaluation
    i. Maturity

Summary

Objectives one and three, I feel, were attained. Students spoke quite freely, even regarding personal problems, within the topics chosen for discussion. Secondly, regarding objective two, the course did cover the major content which I felt was important for student's present and future use.

Objective number four was difficult. In trying to meet the aim of minimizing grades, I tried an experiment, which had interesting results. I told the class they all had a Proficiency academic grade and they all had their credit. They were also told this would free them to concentrate on learning for it's own sake. The only hypothesis I can come up with that has much merit is: "Students are not used to this much class freedom and flexibility; therefore, they used this class as a buffer to break the pressures of the traditional nine periods a day schedule". If the entire school were this way it might have worked, e.g. Summerhill. One class this way was out of character, even uncomfortable for the students, though they didn't want to change.

Students did participate in developing the course content. I noticed, however, they were not willing to pursue content beyond their own immediate life space.

Objective number one was reached due to the variety of interests and backgrounds of the students.

A variety of teaching techniques was used. Very little lecture was used. The majority of time was spent in group discussion following a film strip, role play situation, student presentation of a topic, or buzz group session. I had hoped to use special speakers, but didn't feel it possible this first year.

The students felt the course was helpful and meaningful. They felt the real impact of the course would come later when they ran into the various life situations discussed.

Note: This offering has been combined with the existing Health course which is required of all students in tenth or eleventh grade. It is called Family Living, and is taught by members of the Physical Education staff.

No specific textbook is used, but a great many articles from various magazines, papers, and current publications are put to use. Related filmstrips are also utilized. Class discussion plays a large role in this course.

VOCATIONAL INFORMATION

Philosophy of the Course

The ability to make realistic and satisfying choices does not develop automatically, but must be based on knowledge and varied experimentation. Specific guidance, relating the substance and direction of learning to present and future needs, and the skill of self-evaluation are necessary goals for a truly functional education.

Course Objectives

A. To give students knowledge of the economic nature of the community in which they live, and the wider scope of occupational opportunity in our country and the world.

B. To provide first hand acquaintance with the potential job areas which may be available to high school graduates.

C. To develop the concept of job families, the inter-relationship of industries, and the need for broad training.

D. To help students develop realistic attitudes toward:

1. Their own capabilities and characteristics.
2. The demands in time, training and skills needed in potential employment opportunities.
3. Their own rights, privileges and responsibilities, as well as those of other people.

E. To provide information through methods which are interesting and stimulating to young minds and help them project their thinking and learning toward the goal of self-sufficient adulthood.

Techniques of Instruction

A. Discovery through discussion, investigation, observation of real and simulated situations.

B. Use of available visual materials such as films, pictures, books.

C. Personal investigation of individual interest areas.

D. Field trips.

E. Outside speakers.

F. Coordination of this informational material with actual experience in the manipulative areas.

Course Outline - A One-Semester Course For Ninth Grade

Divisions of Course are as follows:

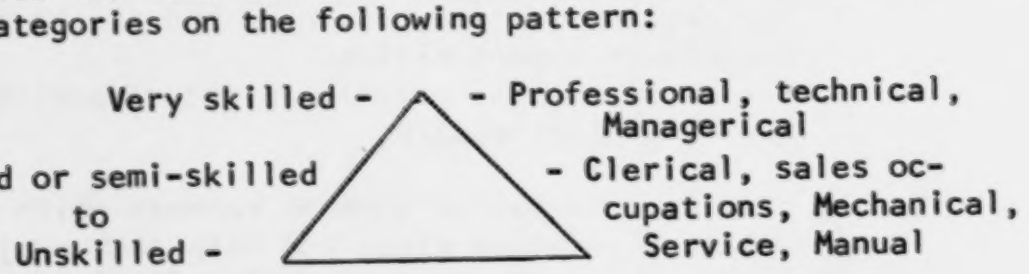
A. Job Families
B. Automotives and Related Industries
C. Communications
D. Health Services
E. Plastics, paper, packaging
F. Automation
G. Apprenticeship and Job Training
H. Labor Unions
I. Teen-Age Employment and Child Labor Laws
J. Civil Service Jobs
K. Food Industry
L. Rubber Industry

Plan of Instructional Practices and Course Content

A. Job Families:

1. The many levels of jobs in every general work category range from highly skilled to unskilled.

a. "Pyramids" or "Job Ladders" were developed for many familiar categories on the following pattern:


Very skilled -
- Professional, technical, Managerical
Skilled or semi-skilled to Unskilled -
- Clerical, sales occupations, Mechanical, Service, Manual

b. New concept of need for upgrading skills for any job. Pyramid distribution has changed with need for fewer manual or unskilled workers, and more technically skilled workers.

2. Learning through doing, seeing, listening.

a. Degree of learning depends on alertness, interests, attitudes, open-mindedness to surroundings.

(1). Tape recording of "Sounds of Work" to be identified.
(2). Identification of familiar local businesses by clues.

b. Use of ten areas of aptitude into which choices usually fall (i.e. mechanical, artistic, persuasive, computational, etc.)

c. Film: Blueprint for Discovery (modern technology)

3. Qualities desired by employers:

a. Sense of responsibility
b. Appearance
c. Adaptability
d. Getting along with other people
e. Punctuality
f. Cooperation
g. Ability
h. Enthusiasm
i. Good judgement
j. Ability to get ideas across to others (communication)
k. Self-control and self-discipline
l. Open mindedness

Many different approaches used throughout course to emphasize importance of these characteristics:

(1) SRA Occupational briefs
(2) Illustrative situation presented for student criticism and judgment
(3) Observation of actual work situations first hand and on film
(4) Check tests on matching characteristics with situations

4. Finding own interest area:

Assignment of one oral, one written report, (student choice of job areas) to cover background or history of skill, types of jobs within "family", skills and training needed, pay scale, job descriptions.

5. Inter-relation of many job areas:

Use of stories from newspapers and daily experience to show involvement of many skills to accomplish one goal.

6. Where to go for information:

a. Bibliography supplied
b. Guided work in school and local libraries
c. Department file of occupational information
d. Employment agencies: state, federal, private
e. Local service and business clubs
f. Published information literature from industrial sources
g. Film: "How to Investigate Vocations"

B. Automotives and Related Industries

1. Divisions of industry:

   a. Manufacturing

      (1) Design
      (2) Engineering
      (3) Fabrication

   b. Sales
   c. Service

      (1) Work experience often starts in this area
      (2) Sub-divisions (specialists, body work, heavy repair)
      (3) Good service reputation vital to every dealer
      (4) Complexity of modern automotive training

2. The early names in automobile industry:

   a. Henry Ford
   b. Kettering
   c. Firestone
   d. Edison

3. Dependence of industry on steel, glass, rubber, plastic, and fabric industries.

4. Introduction of metallurgy:

   a. Most common metals used in industry:

      (1) Group discussion and class investigation of nature and uses of various metals.

   b. Field trip to American Society for Metals. Many metals seen in structural design.

5. Discussion of terms most frequently used in metallurgy:

   a. Many of these were student-produced through reports and previous knowledge.

   b. Film on steel making.

6. Familiarity with training programs available through many dealers and automotive manufacturers.

7. First hand experience and observation in the school automotive shop.

C. Communications

1. Definition by student: The relating of one person to another by sight, sound, touch, and writing.

   a. Speaking or writing thoughts, facts or opinions
   b. Sending information by various means.
   c. Making oneself understood

2. Methods of communication:

   a. Language (written or spoken)
   b. Signals (human, electrical, other)
   c. Visual (clocks, maps, etc.)
   d. Touch

3. Jobs of Communications Field:

   a. Publishing - newspapers, magazines, books
   b. Secretarial
   c. Postal service
   d. Radio, T.V., telephone, telegraph
   e. Recording (stereo, hi-fi)
   f. Advertising
   g. Blue-print, drafting, engraving
   h. Photography
   i. Art work
   j. Electronics, radar

4. Problems in communications:

   a. Freedom of speech
   b. Censorship
   c. Differentiating fact from propaganda
   d. Learning to speak and write clearly, intelligently
   e. Hypnotic effect of modern entertainment, advertising, public opinion shaping

5. Methods of presentation:

   a. Use of library to learn early development of methods of communication, recording, types of language symbols
   b. Students supply as many media of communication as possible (35 presented)
   c. Sample tests from Civil Service material for postal delivery job

   d. Field trip to Western Reserve Telephone Company and commercial art studios

e. Communications unit closely related to discussions in English classes
f. Films on person to person communication

D. Health Services

1. Definition of three areas of personal health:

a. Physical
b. Mental
c. Emotional

2. Method: through student's own experiences and motivating questions:

a. Why is good health a personal asset?
b. How does poor mental or emotional health affect success?
c. What are some ways to maintain good health?

3. What factors contribute to health?

a. Heredity
b. Health living habits:

(1) Proper food
(2) Exercise
(3) Rest
(4) Physical and dental care
(5) Sensible recreation

4. Who provides health services?

a. Personal medical services
b. Public health services

(1) U. S. Public Health Services

(a) How these affect us:
1. School nurse
2. Cafeteria - check on diet, cleanliness
3. Cosmetology Laboratory - supervised
4. Free physicals for work permits

(2) Hospital services

c. Food and Drug Administration

(1) Protection on food products
(2) Drug control

d. Social Security

(1) Protection in retirement years
(2) Film "The Golden Age"

e. Armed Services Hospitals
f. Medicare

5. Community Services (in addition to tax-supported care):

a. Red Cross

(1) Use of U.F. - Red Cross publicity
(2) Junior Red Cross Unit formed in school

b. Tuberculosis Association
c. Cancer Society
d. Film on community health to stress individual responsibility toward others

6. Jobs in health services:

a. Hospital

(1) The variety of jobs used to review the concept of job families and inter-relation of many skills
(2) Field trip to Children's Hospital of Akron
(a) Administrator's talk outlined six major abilities needed by any hospital worker
(b) Chart made by students to illustrate number of skills included in hospital care

b. Drug stores
c. Beauty shops
d. Transportation (ambulances)
e. Food services
f. Building trades
g. Clerical
h. Insurance

E. Plastics, Paper, Packaging

1. Plastic is most common material in home
2. Each student bought in list of plastic items in home
3. Three minute test to name as many as possible
4. Field trip to Plastics Extrusion plant
5. Observation of automation (to be presented next unit)
6. Common terms

a. Molded
b. Extruded
c. Calendered
d. Laminated
e. Vinyl

7. Paper

a. History (Chinese and Egyptians)
b. Modern paper making
   (1) Biggest user - newspapers
   (2) Location of factories - near lumber source
   (3) Materials used determine quality of paper
   (4) Film on pulp and paper process

8. Packaging and label manufacturing in area

a. Discussion of variety of jobs
b. Field trip to American Packaging Corporation

F. Automation

1. Definition: Self-operating (from automatic + operation)

a. Discussion of difference between mechanization and automation
b. Field trips have supplied visual evidence of automation and need for different training, more skills and responsibility

2. Reasons for installing

a. Economy and increased volume
b. Saves time
c. Accuracy

3. Some familiar examples of automatic equipment

a. Thermostat
b. Electric-eye
c. Sprinkler systems
d. Sorting machines
e. Electrical controls (N.Y. power failure showed breakdown of automation)
f. Oil refinery

4. Effects of automation on worker

a. Need for increasing skills
b. Retraining for different jobs

c. Shorter hours
d. Change from production to service jobs
e. Movies on automation - emphasis on organized labor's concern, effect on unemployment, wages, new patterns of life and thought
f. Film: "Of Time, Work and Leisure"

5. Computers

a. Computer must be controlled and fed facts by human
b. Jobs in this field
   (1) Programmer
   (2) Engineers
   (3) Designers
   (4) Service
c. Demonstration of a small computer
d. A selected group of students saw computer in action at telephone company

G. Apprenticeship and Job Training

1. History of Craft Guilds in Europe

a. Discussion of wages for apprentices
b. Pride of workmanship

2. Examples in early U. S. History

a. Paul Revere
b. Ben Franklin

3. Present day training

a. Bureau of Apprenticeship and Training - under Federal Labor Department
b. All skills available
c. High standards for applicants
   (1) Age 16 - 24
   (2) Manual ability
   (3) High recommendation from school
d. Selection procedures for apprentices chosen

H. Labor Unions

1. Understanding of two sides of industrial problems - labor and management

a. Speakers from management and labor

2. Things unions work for

   a. Better working conditions
   b. High wages
   c. Apprenticeship training
   d. Bargaining and arbitration with management

3. Twelve questions distributed for individual investigation and basis for later discussions

4. Job opportunities in big industry

   a. Much competition
   b. School reputation of attendance, attitudes, general performance more important than skills.

5. Film: "A Mighty Fine Union"

I. Teen-Age Employment and Child Labor Laws

1. Booklets available in library and office
2. Each student given a copy of Teen-Agers Guide
3. Discussion of major rules and limitations

J. Civil Service Jobs

Turner Guide to U. S. Civil Service Jobs and Arco Courses for various services were used as study and testing materials.

1. Wide variety of jobs in:

   a. Postal service
   b. Government buildings
   c. Military bases and schools
   d. Printing office
   e. Justice Department
   f. Conservation, forestry, agriculture

2. Most jobs by exam and personal interview.

3. Regulations made by Civil Service Commission and other government offices.

4. Lots of "red tape", but jobs are very secure.

5. General requirements:
   a. Citizen of U.S.
   b. Health regulations
   c. Loyalty check
   d. Probation period

K. Food Industry

1. Facts on World Food Production (encyclopedia).

2. America compared to other countries ir food production, farming methods, standard of living, "staple" foods.

3. The variety of jobs connected with the production of one food product.

4. The service of food:

   a. Milk delivery (and other home delivery products)
   b. Restaurants (hotels, motels, drive-ins, dispensing machines, catering services)

5. Sales promotion methods:

   Example: Advertising, bingo bonus, trading stamps

6. The many modern methods of preserving foods.

7. Publications for wholesale food service are excellent source of articles.

8. Emphasis on advertising, display.

9. Pictures were chosen to trace number of jobs producing a product.

10. How does advertising help sell one product over another?

L. Rubber Industry

1. Observation on field trip:

   a. Field trip to Goodyear including film and tour of plant.

2. Major companies and what they make.

3. How rubber was discovered:

   a. Early history and uses
   b. Accidental invention of "vulcanizing"
   c. Large business volume in local area.

4. Where rubber is grown now. Changes effected by communism.

5. Natural and synthetic products:

   a. Story of gasoline (film)

WORLD OF WORK PROGRAM

At the risk of outraging some academicians of the "knowledge for its own sake" school, I will submit that one of the main functions of educators is to prepare students to be productive members of society - hence, compulsory education and expanding secretarial and vocational programs - hence, English composition, chemistry, advanced calculus, and foreigh languages.

Although it can be argued that the academic subjects we teach have value in themselves, hopefully they will serve the very utilitarian purpose of providing the students with salable skills and knowledge.

If we can agree that aside from "cultural enrichment", "citizenship", "critical thinking", and pursuits we could label "intellectual", educators must concern themselves with the mundane business of preparing students for the work-a-day world, then it seems ironic that we attempt to accomplish this while isolating the students for 12 years from the world of work within the confines of the classroom, while the reality of the world of work lies just outside the schoolroom doors.

With the exception of a few isolated field trips, most students are seldom exposed to the world of work, and rarely does the world of work penetrate the classroom.

This creates two basic problems:

1. THE STUDENT ALL-TOO-OFTEN FAILS TO SEE THE RELEVANCE OF HIS FORMAL EDUCATION TO HIS FUTURE.

   The student is taught to chart a line on a graph algebraically, but asks the question, "For what purpose?". He examines algae under a microscope and dutifully classifies them, but again asks the question, "For what purpose?". He is given the wherewithal, but all-too-often, not the wherefore.

2. ALMOST NEVER IN A STUDENT'S EDUCATIONAL CAREER IS HE SYSTEMATICALLY EXPOSED TO THE WIDE RANGE OF OCCUPATIONS AVAILABLE TO HIM IN THE WORLD OF WORK.

   In most cases, the student's primary source of occupational information comes from friends of the family, neighbors, or relatives who are employed in these occupations, and this constitutes a very restricted and haphazard exposure to career possibilities.

   It seems quite baffling that up to now most educators have considered it sufficient to group students into essentially

three (3) categories (college preparatory, secretarial, and vocational) without somewhere in the curriculum including an occupational survey course for all students, which would (1) make them more aware of their academic strengths, mechanical skills, special interests and talents, and would then (2) relate these strengths, skills, interests, and talents to a wide range of occupations and occupational areas which they might enjoy, and for which they would be well suited.

It was in an effort to bridge the gap between the classroom and the work-a-day world that the Hudson Public School System initiated the World of Work Program on the eighth grade level.

Organization of The World of Work Program

Every eighth grade student participated in the World of Work Program for one forty-five (45) minute period a day, five (5) days a week, one (1) semester. The boys participated in the program during the fall semester, and the girls during the spring.

The boys were separated from the girls primarily in an effort to eliminate whole units of study which would have interested members of the one sex, but not the other. e.g. The boys enjoyed learning about the building trades and the apprenticeship programs available in the automotive and rubber industries; while the girls were very much interested in their units on clerical occupations and careers in home economics. Had these units been taught to classes comprised of both boys and girls, half of the students in each class would undoubtedly have "tuned out".

In addition, I feel that by separating the boys from the girls, both took a more serious attitude toward the World of Work Program than would otherwise have been the case; and both developed a greater understanding of their adult male or female rolls in society. e.g. One guest speaker for the girls gave an enthusiastic talk on the topic Careers and Marriage. Aside from describing numerous occupations which would combine well with marriage, she explained how various occupations actually prepare girls to be better mothers.

An army recruiter talked to the boys about their military commitment, and explained about the many civilian occupations they could train for while in the army.

By separating the boys from the girls, I feel we were able to achieve in the classes a feeling of unity, singlemindedness, and common interest which would have been absent had the classes been mixed.

The World of Work Program was structured around:

1. Films:

   Most of the films shown in the program came from the state audio visual library in Columbus, the Kent State University Library, the Federal Government, professional organizations, and industry. The most educational, interesting, and up-to-date films came from professional organizations and industry.

2. Guest Speakers:

   The boys had thirty-eight (38) guest speakers and the girls had thirty-four (34). Many of the guest speakers were parents of the students. Each guest speaker received three (3) mimeographed pages of suggestions concerning the content and delivery of their talk. Below is a copy of the letter containing suggestions each guest speaker received. I included it in this report for several reasons: (1) The success of the World of Work Program was so dependent upon informative and interesting guest speakers, (2) So many of the guest speakers expressed their appreciation for the mimeographed suggestions and (3) It will give the reader a good idea of how some of the more effective guest speakers we had structured and presented their information.

Suggestions For Guest Speakers

Now that you have graciously consented to speak to our students about your occupation, you are probably asking yourself these three questions:

1. What should I include in my talk?
2. How should I organize my talk?
3. How can I hold the interest of the students for forty minutes?

I have jotted down a few suggestions, based on the presentations of some of our most interesting and successful guest speakers, which might be helpful to you in preparing and delivering your talk. You can modify or ignore these suggestions as you see fit.

Content of the Speech

1. Describe what your employer does, either the process or the service offered:

   a. e.g. A metallurgist described how a casting is made in a foundry. He simplified the various steps involved.

He wrote important words that needed to be defined on the board (such as foundry, casting, metallurgist, and alloy). He showed the students how they could duplicate the work done in a foundry by using wax. Plaster of Paris, and lead or solder.

b. A representative of the Better Business Bureau explained why there was a need for such an organization and how it was organized and is supported by local businessmen. He gave many interesting examples of how the Better Business Bureau exposes unscrupulous practices and works to protect both the consumer and the honest businessman.

2. Describe the various types of jobs or occupations associated with your line of work:

This can be done in two different ways:

a. Describe the hierarchy of jobs, starting with the unskilled and advancing up through the more demanding jobs. (It might be wise to write this information on the board.)

b. As you explain the process or service performed by your employer, describe the various jobs and occupations associated with each successive step or phase. e.g. In a foundry, first you must have the engineer, then the draftsman, die maker, ceramicist, metallurgist, and grinders, in that order.

If possible, think of an interesting illustration describing the types of problems a person in a certain occupation encounters. Whenever possible, point out the advantages and disadvantages of a particular occupation.

<u>The Delivery of the Speech</u>

1. Prepare a brief outline:

An outline will not only help you to organize your thoughts, but will make the material more manageable for the students. e.g. There are three main phases in Data Processing:

1. Input (program + data)
2. Process
3. Output

2. Write some of the more important parts of your outline on the board:

   This can be done either beforehand or as you develop your speech. Put important terms on the board with which eighth graders might not be familiar, but use technical terminology sparingly.

3. Use visual aids if available:

   A short film or a filmstrip is often very effective. Drawing diagrams and simple charts on the blackboard can help to emphasize a particular point.

   BRING IN SOMETHING INTERESTING AND UNUSUAL WHICH IS ASSOCIATED WITH YOUR WORK.

   A metallurgist brought in a casting used in jet bombers to restart the engine if it conks out.

   A banker could bring in a bill of a high denomination, a counterfeit dollar, or some foreign currency.

Use Examples Young Students Will Be Interested In:

The Better Business Bureau discussed fraudulent business practices aimed at relieving young people of their money. e.g. Three solid fuel rockets selling for one dollar turned out to be regular wooden matches with tin foil wrapped around them.

Use Analogies To Simplify Complicated and Technical Material:

e.g. A computer is like a washing machine:

Input - soap, dirty clothes & bleach
Process - washing and rinsing
Output - clean clothes

Ask Questions:

The speakers who have held the attention of the students the most have been those who have sprinkled their talks with questions.

Would you prefer to hire an A student with no extra-curricular activities or a B student with many extra-curricular activities?

What are some of the responsibilities of a manager?

Are extra-curricular activities more important to a research chemist or a manager? Why?

Involve The Students:

A manager divided the class into four groups and gave them each a problem a manager would face. e.g. What would you do if a real good worker constantly came to work one half hour late? What would you do if a good worker had dirty fingernails? What would you do if a good worker threatened to quit because he felt he was not getting promoted fast enough?

Tests in symbolic logic are given to persons desiring to become computer programers. Our guest speaker from I.B.M. gave each student a mimeographed copy of the first ten problems from the test and had them work them in class. After giving them the correct answers, he commented, "If you enjoyed working these problems, and if you got most of them correct, chances are you would enjoy computer programming." The students were involved and interested, and they gained a better understanding of the work done by a computer programer.

Be Enthusiastic:

The students can only be as enthusiastic about what you have to say as you are.

An executive secretary who spoke to the girls about office work gave them the rudiments of shorthand, then wrote simple words and sentences on the board for the students to figure out. She then had volunteers go to the board to write simple words in shorthand. The response of the girls was tremendous.

Add a little humor.

We are all looking forward to your visit.

Sincerely,

Roland Winzer, Instructor
World of Work Program
Hudson Junior High School

3. Field Trips:

Nine (9) field trips were arranged per semester. Each student was allowed to go on four (4) of the nine (9) field trips. Field trips were made to Goodyear Rubber Company, The Cleveland Hopkins Airport, the WKYC Television Station, The Akron Beacon Journal, The Akron General Hospital, the Cleveland Public Library, the J. C. Penny Company, the Summit County Court House, and the Euclid Plant.

One of the main difficulties in arranging field trips for the World of Work Program was trying to induce our hosts to modify or augment their normal tours in order to better serve the objectives of the course. The emphasis of most factory tours is usually placed on the process, not the people or occupations behind the process. We encouraged our hosts to spend more time describing the hierarchy of jobs and the occupational opportunities to be found with their company.

The World of Work was divided into ten (10) areas, but before these ten areas were discussed, there was a fifteen (15) day introductory period. The following is a day-by-day account of the first three (3) weeks.

1. Mimeographed sheets were handed out explaining the objectives and scope of the course. The outline of the course was discussed in greater detail by the instructor. The students were asked to write a paragraph on what occupation they would choose if they were forced to make a decision at that time. They were to give reasons for their choices. These papers were collected and saved until the final week of the semester, at which time the students were again asked to write a paragraph on the same question. The paragraph written by each student at the beginning of the semester was then compared with the paragraph written at the end of the semester. The results of these comparisons will be discussed later.

2. Guest Speaker - The Guidance Counselor discussed the services and assistance which the Guidance Department provides, particularly in the testing of one's interests, skills, and abilities, in the planning of one's high school course of study, and in the imparting of occupational information. The importance of testing was discussed. The Kuder Inventory Test in particular was discussed.

3. The Kuder Inventory Test was administered.

4. The students graded their own Kuder Inventory Tests and charted their preferences on profile sheets which accompanied the test. The test results were interpreted as suggested by the Kuder Administrators Manual.

5. Mimeographed sheets were distributed with the ten (10) categories of preferences used with the Kuder Inventory Test - outdoor, mechanical, computational, etc. Under each category heading was a list of occupations. The students were asked to pick several occupations from each of the three categories in which they scored the highest and write a brief paragraph about each one. The students used the following references:

    a. Career Opportunities - published by New York Life Insurance Company

    b. Encyclopedia of Careers and Vocational Guidance - Doubleday, Inc.

    c. Careers - Institute for Research in Chicago

    d. Chronicle Occupational Briefs by Chronicle Guidance Occupations, Inc.

    The Kuder Inventory Test was an important part of the World of Work Program. It provided the students with a starting point from which to begin exploring the countless number of existing occupations, and that starting point was their own personal interests.

7. Film - Aptitudes and Occupations. After showing the film, we discussed the difference between an aptitude test and an interest test. The students were asked to write down the academic subject in which they received the highest grades, and we discussed occupations related to the academic subjects.

8. We discussed unique and unusual ways in which teenagers could earn money. We discussed jobs that would coincide with their interests as well as jobs which would give them experience in occupational areas of interest to them.

9. Child Labor laws were discussed. The students learned the procedure to be followed in applying for a work permit.

10. Guest Speaker - Al Kirtley, Junior Achievement. Mr. Kirtley showed a film describing capitalism and the organizing of a corporation. He then explained the Junior Achievement Program and what could be learned by joining the program.

11. Guest Speaker - Glen Snyder, Youth Opportunity Center. Mr. Snyder explained how to utilize the free services of the Ohio Employment Service, particularly the Youth Opportunity Center, to find temporary or permanent employment. He gave a five (5) to ten (10) year forecast of the employment picture, mentioning skills which will be in demand, and those which will not.

12. Guest Speaker - Ted Wesley - Snelling and Snelling Employment Agency. Mr. Wesley discussed occupations for which there was a shortage of qualified men, and gave a five (5) to ten (10) year forecast of occupational areas which will continue to have a shortage of qualified men. He explained the difference between the Ohio State Employment Service and an employment agency.

13. We discussed different ways to locate work, how to apply for a job, what to include in a resume', and how to prepare for an interview.

14. Guest Speaker - Ed Martinson - Unemployed college graduate seeking his first job. Mr. Martinson discussed the courses he took in the college of business administration. He discussed some of his job interviews, gave examples of some of the questions he was asked, and gave examples of some of the mistakes he felt he made in job interviews. He pretended he was an employer and interviewed some of the students and the class discussed the performances of those students being interviewed.

15. We discussed the course structure for the remainder of the semester. The students were given a mimeographed sheet with a list of the field trips scheduled for the remainder of the semester. The students were told to select four (4) of the nine (9) field trips which would most interest them.

That concluded the introduction period.

The World of Work Program was divided into ten (10) areas or units of study. Each unit was from one (1) to two (2) weeks in length. For the boys, the units included:

Industry
Health
Special Services
Management
Transportation
Communication
Construction
Education
Welfare
The Military

For the girls, a unit on clerical occupations replaced construction; retailing replaced industry; and a unit on Community Service replaced the military.

I will describe how one of the units was covered to indicate the general procedure followed in each of the ten (10) units. I have selected the girls' unit on Health.

Monday - The students saw a film on loan from the Ohio Department of Health entitled "New Life For Julie". After the film, we listed and briefly defined on the blackboard all the different jobs and occupations we could remember from the film.

Tuesday - Another film from the Ohio Department of Health was shown entitled, "This Is Nursing". After the film, we discussed the responsibilities of the candy striper, adult volunteers, practical nurses, and registered nurses.

Wednesday - The students saw a film on loan from the Dental Hygenists Professional Organization, which showed the training students receive at a school of Dental Hygene.

Thursday - A film on loan from the Upjohn Chemical Company revealed the vast amount of research being done with drugs to find cures for the major diseases which still plague mankind. The film also pointed out the role the parmacist plays in filling the patients' perscriptions.

Friday - A local woman who is a certified pharmicist spoke to the students about her occupation. She discussed how she became interested in pharmacy, how she prepared to be a pharmacist, and how she has been able to combine her career with marriage.

Monday - A film was shown entitled, "Occupational Therapy".

Tuesday - Two of the students' mothers who are Physical Therapists discussed their profession.

Wednesday - We reviewed most of the occupations we had talked about in this unit on health. We talked about the field trip which was scheduled for Thursday.

Thursday - Eighty (80) students visited the Akron General Hospital in two (2) groups. Forth (40) in the morning and forty (40) in the afternoon. On each occasion, the students were first seated in a large conference room where they listened to several speakers: (1) a student nurse who explained both the frustrations and the rewards she experienced in nurse's training, (2) the volunteer

coordinator who explained the many ways in which young girls can assist in hospitals as candy stripers, (3) a lab technician who described her job and explained what the students would see when they toured the hospital laboratory, and finally (4) a registered nurse who gave a brief explanation of the structure of a hospital and described the departments they would tour.

The speakers took approximately forty-five (45) minutes.

Next the students were divided into five groups with eight (8) girls in a group and a volunteer hospital aid as a guide. The students toured much of the hospital, including the lab, X-ray Department, the kitchen, and the Physical Therapy Department. In most cases, the heads of the departments would explain to each group the function of their departments and would describe the related occupations.

The tour lasted approximately one hour and fifteen minutes.

Friday - We discussed the field trip. The students were then asked to write a paragraph on the question, "If you had to choose an occupation associated in some way with medicine, which one would you choose? Explain why that would be your choice.".

That concluded our unit on Health. The other units were handled in a similar manner.

I had four (4) World of Work classes, all running consecutively in the morning. Since guest speakers are such an essential part of the World of Work Program, and almost all of our guest speakers kindly consented to speak to all four (4) classes, in my opinion it would be inadvisable to increase the number of World of Work classes beyond four. It would be better to have more students in each class than more classes.

No grades were given in the World of Work course. A notebook was required and both the boys and girls were given two (2) tests during the semester. The students were tested on information and terminology pertaining to the work-a-day world which they had been exposed to in the classroom or on field trips. Neat and complete notebooks and high scores on the tests would make the students eligible to go on additional field trips. The student's in-class behavior and his expressed interest in a particular occupational area were also considered in determining which students would be allowed to go on more than four field trips.

The fact that on eighteen (18) school days a portion of the eighth graders missed all of either morning or afternoon classes, may concern those not approving of so many field trips on school time. Few students, however, missed more than four (4) half days of classes because of World of Work field trips since the entire group did not go on all field trips. As long as the other eighth grade teachers were informed well enough in advance about the field trips, they could, and uncomplainingly did, work their lesson plans around them.

Student response to the World of Work Program was enthusiastic. It was more enthusiastic towards the end of the semester than at the beginning. There were students who, at first, were not too interested in the idea of exploring occupations. But, as they had an opportunity to listen to guest speakers who were genuinely enthusiastic about their work, their interest in the program increased. Once the Kuder Inventory Test was administered and interpreted, the students began to read about many occupations on their own outside of class.

The field trips contributed not only to the students' enthusiasm for the World of Work Program, but also to their knowledge of the work-a-day world. Our field trip to the Akron Police Station could be used as an example. The students talked with a detective and a policeman, and were shown slides of the Akron Police Training School. They were given a tour of the police station, then they were taken to the municipal court, where they sat spellbound for almost two hours listening to a wide variety of cases. After court was adjourned, the judge and prosecuting attorney remained in the courtroom with the students and answered as many of the students' questions as they could concerning the cases they heard, the decisions the judge rendered, and courtroom procedure. Both discussed the rewards of pursuing a career in law.

As we were returning to school on the bus, it occurred to me that I had witnessed a rare phenomenon. Sixty (60) eighth grade boys had sat on hard benches in a warm room for over two and one half hours - they had missed their normal lunch period by almost an hour - and yet they had been one of the most attentive groups of students I had ever observed. How could experience, learning, and interest such as this be stimulated within the four walls of the classroom?

The World of Work Program was a new educational venture for the Hudson School System. The program was introduced on a trial basis in 1967 and carefully watched and evaluated by Guidance Counselors, the Vocational Supervisor, and the school administration. The concensus of those who became familiar with the program was overwhelmingly favorable. Consequently, the course will be made a permanent part of the vocational curriculum.

CHILD CARE TRAINING

First Year Child Care Aide

Phase I - Basic Understandings of Nursery Schools and Child Care Workers

1. Getting acquainted with the Nursery School:

   a. Viewing slides on Hudson High's Nursery School Program.
   b. Study basic philosophies and goals of various preschool groups.
   c. Study the history of preschool education.

2. Understanding personal qualifications and requirements of child care workers:

   a. Emphasis on health, maturity, speech, tone of voice, manner, enthusiasm, sincerity, interest, cooperation, etc.
   b. Learn the roles of the child care aide and assistant.

3. Child Care job opportunities.

Phase II - Understanding The Operation of Nursery School

1. Observation techniques and goals

2. Concepts of good physical environment for children:

   a. Play equipment and materials
   b. Room appearance, comfort, appeal - stimulation

3. Planning and managing a child's daily routine:

   a. Understanding the importance of schedules, toileting, refreshments, rest, activity, etc.

4. Nursery School health practices:

   a. Throat check, sanitizing dishes, safety measures, etc.

5. Food preparation and serving

6. Nursery School curriculum study

   a. Art, music, play, science, games, etc.

7. Teaching tools:

   a. Techniques in demonstrations, story reading, explanations, giving directions, maintaining order, holding interest, stimulating thought.
   b. Helping children to learn in everyday situations.

8. Assuming a responsible attitude toward Nursery School duties.

9. Guidance techniques

10. Discipline techniques

11. Developing good office skills:

   a. Filing, typing, greeting guests, receiving calls and relaying messages.

12. Assuming a responsible attitude toward confidential information.

Phase III - Understanding Child Development and Care

1. Pre-natal, post-natal and infant care

2. Child development (emphasis on preschool years and needs of children)

   a. Physical
   b. Emotional
   c. Social
   d. Intellectual

3. Babysitting techniques

4. Influences on development:

   a. T.V., comics, movies
   b. Heredity and environment
   c. The roles of each member of the family

5. Establishing positive attitudes towards:

   a. Children of all races and backgrounds
   b. Adults
   c. Sex
   d. Money
   e. Safety
   f. Health practices
   g. Work
   h. School

6. Home Nursing:

   a. Recognizing illnesses and understanding techniques of care.
   b. Simple first aid techniques.

Second Year Child Care Assistant

Phase I - Work Experience Information and Understandings

1. Basic philosophy and goals of the co-op preschool groups
2. Case study structure techniques and values
3. School readiness

Phase II - Special Child Development, Care, and Needs (Emphasis on Individual Differences)

1. Childless homes - adoption
2. Homeless children
3. Intelligence and retardation
4. The gifted child
5. Birth defects
6. Handicapped children
7. What to tell children about divorce, Deity, death, crisis, Santa Claus

Phase III - Special Problems in Older Children and Adolescents

1. Guidance - meeting needs
2. Alcoholic parents, divorce and other family problems
3. Marriage readiness and mate selection - values and goals

Phase IV - Institutions That Meet Special Needs of the Community

1. Health (mental and physical)
2. Protection

Phase V - Parent Education

Phase VI - Employment Information

1. Applying for a job
2. Opportunities available in our locality
3. Child-care laws

Phase VII - Personal Insight

1. Getting along with others
2. Working under supervision
3. Meeting problems
4. The successful family

Child Care Resume

Looking back over the year, there were many achievements and successes in the Child Care Program. Overall, the senior girls matured to a level greater than I expected. In the two (2) years that I have had the program, there was one (1) dropout. Boys are becoming interested in Child Care. Three (3) boys voluntarily helped and added much to the program. The children loved their involvement.

The following reports are the most significant:

A. One senior girl decided to break her engagement to a boy and go to college to major in primary education.

B. Another girl in the class became acutely aware of childrens needs and tried to help her socially-starved niece.

C. Still another student has a sister who is retarded. She barned guidance methods and developed a deep understanding for her needs.

D. The girls constructed a puppet show for our Nursery School It was so successful that they were urged to enter it in the Hudson High talent show. They were accepted immediately at the tyouts and did a charming performance. This, in turn, brought poise and a feeling of success to the four girls involved.

E. Two years ago, a student moved here from another district. Connie had no interest in school and was destined to drop out until she found success in our class. Her art talent and strong leadership

ability developed and gave her importance and a sense of need. She had a poor attendance record. The Child Care Class assumed a sister-type attitude toward Connie and many times prompted her to attend school and do her job. She graduated two weeks ago - the first member of her family to graduate from high school.

F. Perhaps the greatest success story can be told about Cathy. Cathy was filled with hate when she entered the class two years ago. She was extremely difficult to communicate with and she assumed a defiant attitude. Cathy identified with the underdog. She was well above average in intelligence and a born leader. She came to life when exposed to the Twinsburg Head Start Program. Much credit should be given to the teachers in Twinsburg. They demanded complete co-operation and because Cathy adored the poverty children, she co-operated. She changed unbelievably into a thoughtful, understanding person and a tremendous assistant. She organized a very successful school dance and persuaded the students to donate the proceeds to Head Start. In the spring, she voluntarily drove into one of the most dangerous poverty areas in Akron. She was fearless. Cathy wouldn't miss her required days in Akron for anything. She had excellent rapport with the black people. The Head Start teachers turned over many teaching duties to her and taught her their methods. She got through to the children in many ways better than they did. Where there were problem children, she encouraged the teachers to retain them. They would assign her to these children and she would succeed. She brought the children clothing, toys, and many times used her own money to meet their needs. This spring we had a school Awards' Assembly. The director of the Twinsburg Head Start Program presented Cathy with a special citation signed by President Johnson. She was successful in the eyes of her peers and has set a precedent for future child care workers. Perhaps a statement from one of our faculty sums up Cathy's accomplishments: "The Student Council president talks of doing great things to better our society; and Cathy quietly and diligently did great things."

Child Care Texts

C. Luise Riehl, R.N., Family Nursing and Child Care, Chas. A. Bennett Co., Inc., 1961.

Mollie Stevens Smart and Russell Cook Smart, Living and Learning With Children, Houghton Mifflin Co., 1949.

Holly E. Brisbane with Audrey Palm Riker, The Developing Child, Chas. A. Bennett Co., Inc., 1965.

Louise M. Lanford, Guidance of the Young Child, John Wiley & Sons, Inc., 1965.

Katherine Read Baker and Xenia F. Fane, Understanding and Guiding Young Children, Prentice-Hall, Inc., 1967.

Rebekah M. Shuey, Ed. D., Elizabeth L. Wooks, Ph.D., and Esther Mason Young, M.A., Learning About Children, J. B. Lippincott Co., 1958.

Planning Nursery School Activities

Adams, The Kindergarten How-To-Do-It Book, T. S. Denison and Co., 1962.

Peter, Make-It Book, Golden Press, 1953.

Freeman, Parties For Children, Golden Press, 1964.

Pitcher, Lasher, Feinburg, and Hammond, Helping Young Children Learn, Charles E. Merrill Books, Inc., 1966.

Hollander, Portable Workshop For Pre-School Teachers, 10 booklets, Double Day and Co., Inc.).

Ellis, The Kindergarten Log, T. S. Denison and Co., Inc., 1965.

Paxman, The Family Book of Fun, Gramercy Publishing Co., 1962.

Art

Hoover, Art Activities, Davis Publishing Inc., 1961.

Silverbatt, Creative Activities, Creative Activities, 1964.

Science

Haupt, Science Experiences For The Nursery School Children, booklet, National Association for the Education of Young Children.

Music

Gode, Finger Fun, Hayes School Publishing Co., Inc. 1963.

MacCartney, Songs For The Nursery School, The Willis Music Co.

Song Book, Teachers Publishing, 1960.

Boni, Folk Songs, Simon Schuster, 1947.

Landeck, Songs To Grow On, Edward B. Marks Music Corporation, 1950.

Theory

Ilg, M.D. and Ames, P.H.D., Child Behavior, Harper and Row Publishers, 1966.

Benjamin Spock, Baby and Child Care, Pocket Book, New York, 1968.

Todd and Heffernan, Years Before School, The MacMillan Co., 1968.

Read, The Nursery School, W. B. Saunders, 1966.

Ilg and Ames, School Readiness, Harpers and Row Publishers, 1964.

Tarnay, What Does The Nursery School Teacher Teach?, pamphlet, National Association for the Education of Young Children, 1965.

Christianson, Rogers, and Ludlum, The Nursery School, Houghton Mufflin Co., 1961.

Dow, Toys, Toddlers, and Tantrums, M. Barrows and Co., 1962.

Child Care in Ohio, Ohio Department of Welfare, 1963.

Armstein, What To Tell Your Child, Bobbs-Merrill Co., 1960.

Eight (8) Headstart Booklets, Office of Economic Opportunity.

Montessori, Dr. Montessori's Own Handbook, Schacken Book, 1965.

Selected articles from Young Children, Teaching The Disadvantaged Yong Child, National Association For The Education of Young Children, 196.

Better Homes and Gardens Child Care and Training Department, Better Homes and Gardens Baby Book, Meredith Publishing Co., 1956.

Ann Landers, Ann Landers Talk To Teen-Agers About Sex, Prentice Hall Inc, 1963.

Page and Carlick, Guides For Teaching, Nursery School in Michigan Site.

Landis - Landis, Personal Adjustment, Marriage, and Family Living, Prentice Hall

Goodspeed and Johnson, Care and Guidance of Children, J. B. Lippincott Co., 1965.

Ellet, The World of Children, Burgess Publishing Co., 1965

Chittenden, Living With Children, The MacMillan Co., 1944.

Child Welfare League of America Standards For Day Care Service, Child Welfare League of America, Inc., 1968.

Jones, What Is Music For Young Children? National Association for Education of Young Children, 1958.

Chittenden, Murphy, and Williams, Essentials of Nursery Education, National Association for the Education of Young Children, 1958.

Your Child From One to Six (1945) and Your Child From Six to Twelve (1949). U. S. Department of Health, Education and Welfare.

Summary from a Conference of Directors, Preparing Teachers of Disadvantaged Young Children, National Association for the Education of Young Children, 1966.

34 Public Affairs Pamphlets, 1963.

APPENDIX B

RESEARCH METHODOLOGY

In order to evaluate the program, a number of different techniques were employed. Students were given several tests each year. In addition, a great deal of non-test data were collected. A discussion of the specific test and non-test data collected, the sample used, and the specific procedures employed is contained in the following sections.

Test Data

Students were given several attitude tests and one biographical questionnaire in January or February each year. Because of the need to disrupt school as little as possible, tests were not always given under exactly the same conditions for all four years. In addition, over the course of four years, some tests were added or eliminated as thought appropriate. The tests discussed here are the ones that were judged most useful and retained for the final evaluation.

In the first year, students answered some tests on the booklet and some on a standard IBM Answer Sheet. During the remainder of the study, a special Digitek Answer Sheet was designed and instruments revised so that all tests were answered on the answer sheet. An exception to this was the Vocational Maturity Scale, which was given in the form developed by the University of Iowa and was scored by MRC until the final year of the program. In the final year of the program, instructions were modified slightly so that the test could be answered on our standard Digitek Answer Sheet.

The first year all instruments were given to all college preparatory students in grades nine through twelve at the same time in one sitting in a large room. The difficulty in administering the tests to such a large group led to changes in future testing. Tests were given to all the vocational students in grades nine through twelve, in groups of fewer than thirty, in classrooms.

In the second and third years, tests were again given to all high school students in grades nine through twelve. Tests were given to college preparatory students in their English classes in four separate class periods. Vocational students were given the tests in small groups at one sitting during the time that college preparatory students were taking semester exams.

In the fourth year, the tests were given to only ninth and twelfth graders. The college preparatory students were given all of the tests at one sitting in a large room. The twelfth grade was tested one day and the ninth grade the next. Vocational students were given the tests in their English classes on four separate days.

Following is a brief description of the tests used as previously footnoted in Chapter IV: Introduction.

Test 1, Occupational Aspiration Scale:

The OAS is a test to determine the level of occupational aspiration of students. It consists of eight questions, each requiring a student to choose from jobs representing the entire range of occupational prestige. The higher the prestige of the jobs chosen, the higher the students' scores (scores may range from eight to eighty.) For a representative sample of high school students, the mean was 36.2 and the standard deviation was 12.99. (Haller and Miller, 1963.)

Many of the jobs on the OAS seem appropriate to men only, so a women's form was constructed for use in the second year of the program. In order to construct the form, students were asked to rate the occupational prestige of a number of jobs, including those used to make up the men's form of the OAS, plus the jobs for which training programs were available in the high school. In addition,some jobs for women were added to the prestige ranking which were suspected to represent various prestige levels. From the prestige rankings of the jobs by the girls the first year of the program, a girls' form was then constructed in the same manner as the original boys' form was by Haller. Since the approximation of previously used techniques in constructing the test was the only attempt at checking the reliability and validity of the instrument, girls' scores should be interpreted with caution.

Test 6, Index of Adjustment and Values:

This test consists of a list of thirty-seven adjectives that students are to apply to themselves and rate themselves on a three point scale. This is a slight modification of the original instrument, which required a response on a five point scale. (Bills, undated.) The change was made to accommodate students in a wider age and intelligence range than those upon whom the instrument was standardized. Students decide how much of the time the adjective describes them to get a measure of "self-concept." They then indicate how satisfied they are with themselves as described in the first part. This provides a measure of "self-satisfaction." Finally, students are asked to tell how they would like to be to provide a measure of "ideal self-concept." Responses are given on a three point scale to each adjective. Scores for each scale are then weighted (three for highest, two for middle, and one for lowest) total for all the adjectives. The higher the score, the "better" the self-concept. Scores may range from thirty-seven to one hundred and eleven. No norms are available from outside sources, since the scoring of the instrument was modified for this study. The IAV was first given in the first year of the program.

Test 7, JIM Scale:

The JIM Scale is a test of motivation toward school which attempts to measure the factors, other than ability, which affect school achievement. To date, validation studies have indicated that it is much more effective in determining the motivation of girls than boys. The scale consists of eighty items, fifty of which are scored to which students are asked to respond on a four point scale from strong agreement to strong disagreement. A range of scores from zero to two hundred is possible. The higher the score, the higher the motivation. On a representative sample of students from grades seven to twelve, boys had a mean score of 120.71 and a standard deviation of 23.30; girls had a mean score of 127.92 and a standard deviation of 23.76. (Frymier 1965) The JIM Scale was administered for the first time during the second year of the program.

Test 8, School Attitude Survey: Students:

On this instrument, students are asked to rate students in the vocational program (part 1) and students in the college preparatory program (part 2) on the same adjectives employed on the Index of Adjustment and Values. A three point scale was again used and the instrument was scored in the same manner as the Index of Adjustment and Values. Scores on each part could range from a low of thirty-seven to a high of one hundred and eleven. The School Attitude Survey was administered for the first time during the second year of the program.

Test 9, Vocational Development Inventory: Vocational Maturity Scale:

The Vocational Maturity Scale of the Vocational Development Inventory is a fifty item true-false test. The score is the number of questions correctly answered. It attempts to measure the following dimensions of vocational maturity: involvement in the choice process, orientation toward work, independence in decision making, preference for vocational choice factors, and conceptions of the choice process. (Crites, 1965) Average scores of students in grades nine through twelve seem to be about 38.5 with a standard deviation of about 4.5. The Vocational Maturity Scale was first administered during the second year of the program.

ETS Guidance Inquiry Test, Form HGU:

This is a thirty-four item multiple choice test developed by Educational Testing Service to evaluate a career exploration program developed by them entitled You, Today and Tomorrow. It was designed to measure changes in attitudes, values, and knowledge relating to the World of Work. At Hudson, it was given to eighth grade boys and girls before and after completing the World of Work course. In 1967-68, it was given to both boys and girls. In 1968-69, it was given both times to girls only; it was given to boys only once, near the end of the course. The eighth

grade groups to which ETS administered the test had a pretest mean of 12.6 and a standard deviation of 1.9; the post-test mean was 16.4 with a standard deviation of 3.3.

General Aptitude Test Battery:

The GATB was administered to all students in the class of 1969 in the middle of the ninth grade.

Non-Test Data:

Interviews:

A number of vocational and college preparatory students were interviewed in the spring of each year to determine attitudes toward the vocational program. In addition, all students in the class of 1969, who were in the vocational program for four years were interviewed in their senior year. Also, vocational students' parents who came to the school-parent conferences were surveyed the first two years by means of a questionnaire and were interviewed in the final year.

Drop-Outs:

The number of students who dropped out of school each year was tabulated. In addition, all members of the class of 1969 who dropped out of school over the four high school years was calculated.

Curriculum Change:

A study was made of the pattern of course selection of the class of 1969 for four years.

Follow-up Study of Graduates:

In May, 1967, a telephone follow-up study was conducted for the class of 1966, the first class to have students enrolled in the vocational program. During the 1969-70 school year, a questionnaire-type follow-up was sent to all classes graduated since the introduction of the vocational program.

Attendance:

A comparison was made between the attendance records of students in the class of 1969 in grades nine and twelve. Since total year attendance was available for all in grade nine, but only first semester attendance was available for grade twelve, grade nine days absent for the year were halved for all students for purposes of comparison. An influenza epidemic was prevalent in Hudson the first semester of the 1968-69 school year which accounts for the higher absence figures for the students in their senior year.

Description of the Sample:

Since it did not seem feasible to obtain a control group from another school, it was decided to utilize the college preparatory students as the control group and statistically control initial differences between groups by use of the analysis of covariance techniques.

Originally, plans were to compare three (3) groups of students; vocational, college preparatory, and mixed (those students taking both vocational and college preparatory courses). Three (3) factors precluded final analysis for three (3) groups. First, the Class of 1969 was not large enough to provide large numbers of mixed students; second, a comparison of boys' and girls' scores on the tests revealed significant sex differences, thereby indicating the need to also separate the sample by sex which further reduced the size of the subgroups; and third, at the end of the four years, all of the students for whom we had four year test scores could be identified primarily with either the vocational or college preparatory program for the preponderance of the four years. Thus in the longitudinal analysis, students were classed as either vocational or college preparatory, based upon the course of study with which they most closely identified.

This means that nineteen (19) students in the vocational program for four years took no college preparatory course. The flexibility of course selection emphasized in the design of the program made complete separation of curriculum groups for four years impossible. The final longitudinal group who were present for all four years and took all the tests in grades nine and twelve consisted of twenty-four (24) college preparatory boys, twenty-two (22) college preparatory girls, six (6) vocational boys, and eleven (11) vocational girls. For the tests not given initially until the second year of the study the sample was slightly larger.

Four major factors resulted in the reduction of the longitudinal sample to this size; first, during the first year some data was lost from improperly completed answer sheets; second, there was considerable movement into and out of the class over the four year period; third, an influenza epidemic was prevalent at the time of the testing in 1969 and a number of students were absent on the day of the testing and could not take the tests at a later time; and fourth, several boys were working full-time at the time of the testing and therefore, could not be tested.

In addition to the longitudinal comparisons, two other types of comparisons were made. Ninth graders, each of four years, were compared with ninth graders from the other three years to determine if there were initial differences between students entering the ninth grade from year to year in level of occupational aspiration and vocational maturity. Students were separated by sex, but not curriculum, for this comparison. In addition, eighth grade students in 1967-68 and 1968-69 were given the ETS Guidance Inquiry Test at the beginning and conclusion of the World of Work course.

Additional testing was done during the program which is not reported here. As mentioned previously, the first three years of the program, tests were given to all students in the high school and tallied to provide for gross comparisons of vocational and college preparatory students as rough indicators of progress until longitudinal data was available. This information was included in the yearly progress reports, but little is reported here because it was cross-sectional and descriptive rather than indicative of change. In addition, two questionnaires, Counseling Expectancies and Occupational Survey, were administered for all four years, but have not been included in this report because the numbers in the longitudinal groups on these two instruments were too small to yield meaningful information.

When the experimental and control groups, vocational and college preparatory students respectively, were compared, initial differences were apparent on almost every factor considered. (Appendix C - Tables A-2 and A-3) This confirms the first hypothesis of the study, i.e. That vocational and college preparatory students have different attitudes toward themselves, school, and the world of work. Relating to this hypothesis the following specific differences were found. Areas where initial differences were in favor of the vocational students were: vocational girls scored higher on the Index of Adjustment and Values "self-satisfaction" scale; vocational boys' opinions of vocational students were higher than college preparatory boys' opinions of vocational students on the School Attitude Survey; and vocational boys scored higher than college preparatory boys on the K (motor coordination) and M (manual dexterity) scales of the General Aptitude Test Battery. In all other areas tested, the initial mean scores of the college preparatory longitudinal students exceeded those of the equivalent vocational group. All differences referred to here are actual numerical differences not tested for statistical differences.

In addition to the above mentioned numerical comparisons, a statistical comparison of the two groups was made on the composite score on the Iowa Tests of Educational Development and the IQ score of the Kuhlman-Anderson Mental Ability Tests. A *t* Test revealed that, if one assumed that both groups were random samples of some larger population, the mean scores were significantly different at the .001 level.

Analysis of Test Data:

Longitudinal comparisons between the experimental and control groups in grades nine and twelve were made by using the analysis of covariance technique. In this technique, initial differences between groups were controlled and an adjusted final mean was calculated based upon assumed initial equality of groups.

Comparisons between groups entering the ninth grade each year were done by analysis of variance. An F Test was computed to determine the

significance of differences between the means of the groups from the beginning to the end of the course.

Finally, because of the relatively small number of vocational students in the longtitudinal group, it was decided to do a "Mini-case Study" of several of the vocational students so the reader could see the impact of the program on individual students.

Bibliography

Bills, R. E.; Manual For Index of Adjustment and Values: Elementary, Junior High School, and High School. Alabama Polytechnic Institute, Undated.

Crites, J. O.; Measurement of Vocational Maturity in Adolescence: Attitude Test Of The Vocational Development Inventory, Psychological Monographs, 1965, 79, 1-36.

Frymier, J. R.; Motivation. In the Nature of the Educational Method. Columbus, Ohio, Charles E. Merrill Books, 1965. pp. 107-155.

Haller, A. O. and Miller, I. W.; The Occupational Aspiration Scale: theory, structure, and correlates. Agricultural Experiment Station Bulletin 288, Michigan State University, 1963.

Shimberg, B. and Katz, M.R.; Evaluation of a Guidance Test. Personnel and Guidance Journal, 1962, 41, 126-132.

APPENDIX C

List of Tables:

Table A-1. A comparison of the IQ and achievement of vocational and college preparatory students.

Table A-2. A comparison of several measures of initial attitude of vocational and college preparatory students.

Table A-3. Changes in attitudes of members of the class of 1969 from grade nine or ten to grade twelve.

Table A-4. Analysis of test scores by direction of change in scores from grade nine or ten to grade twelve.

Table A-5. A comparison of changes in attitudes of students on Test 8, School Attitude Survey, from grade ten to twelve.

Table A-6. Changes in attendance.

Table A-7. Miscellaneous statistics.

Table A-8. Changes in scores of eighth grade students on ETS Guidance Inquiry Test.

Table A-9. A comparison of the attitudes of students entering the ninth grade for four years.

Table A-10. Test scores of students in case studies.

APPENDIX C

Table A-1

A COMPARISON OF THE IQ AND ACHIEVEMENT OF VOCATIONAL AND COLLEGE PREPARATORY STUDENTS

CLASS OF 1969, GRADE ELEVEN

Iowa Tests of Educational Development-Composite Score

	Boys		Girls	
	V N=22	CP N=60	V N=21	CP N=57
Mean	11.0	25.3	14.2	23.1
S.D.	3.2	5.4	4.4	4.9
t		4.31**		7.44**

Kuhlman-Anderson Mental Ability Tests

	Boys		Girls	
	V N=20	CP N=61	V N=18	CP N=58
Mean	102.0	130.8	108.9	127.6
S.D.	9.5	13.8	13.9	13.2
t		10.27**		7.35**

** Significant at .01 level of confidence.

TABLE A-2

A COMPARISON OF SEVERAL MEASURES OF INITIAL ATTITUDES OF VOCATIONAL AND COLLEGE PREPARATORY STUDENTS

LONGITUDINAL GROUP, CLASS OF 1969

Test I, Occupational Aspiration Scale, Ninth Grade

	Boys		Girls	
	V	CP	V	CP
	N=6	N=29	N=12	N=35
Mean	29.5	52.3	32.2	47.2

Test 6, Index of Adjustment and Values, Ninth Grade

Test 6-I, Self

	Boys		Girls	
	V	CP	V	CP
	N=6	N=28	N=12	N-19
Mean	85.7	88.9	86.3	88.9

Test 6-II, Self-Satisfaction

	Boys		Girls	
	V	CP	V	CP
	N=6	N=27	N=11	N=20
Mean	81.8	88.4	87.6	84.9

Test 6-III, Ideal Self-Concept

	Boys		Girls	
	V	CP	V	CP
	N=5	N=28	N=11	N=20
Mean	96.4	103.9	96.6	105.9

TABLE A-2 - Continued

Test 7, JIM Scale, Tenth Grade

	Boys		Girls	
	V	CP	V	CP
	N=11	N=38	N=13	N=37
Mean	81.0	124.2	103.4	129.4

Test 8, School Attitude Survey-Students, Tenth Grade

Test 8-I, Attitude Toward Vocational Students

	Boys		Girls	
	V	CP	V	CP
	N=11	N=35	N=12	N=33
Mean	85.9	68.1	80.8	81.5

Test 8-II, Attitude Toward College Preparatory Students

	Boys		Girls	
	V	CP	V	CP
	N=11	N=35	N=12	N=33
Mean	86.3	92.9	73.4	96.6

Test 9, Vocational Maturity, Tenth Grade

	Boys		Girls	
	V	CP	V	CP
	N=11	N=42	N=14	N=42
Mean	27.6	35.9	35.1	36.9

TABLE A-2 - Continued

Iowa Tests of Educational Development, Composite, Eleventh Grade*

	Boys		Girls	
	V N=22	CP N=60	V N=21	CP N=57
Mean	11.0	25.3	14.2	23.1

Kuhlman-Anderson Mental Ability Tests, Eleventh Grade*

	Boys		Girls	
	V N=20	CP N=61	V N=18	CP N=58
Mean	102.0	130.8	108.9	127.6

General Aptitude Test Battery, Ninth Grade*

		Boys		Girls	
		V N=17	CP N=42	V N=15	CP N=51
Mean	G	87.7	113.6	98.4	111.9
	V	89.8	107.9	92.7	110.8
	N	83.6	105.4	95.9	104.5
	S	100.7	121.5	107.1	115.4
	P	94.9	108.3	106.6	115.6
	Q	93.6	109.4	109.1	114.7
	K	95.5	94.2	101.4	104.8
	F	91.5	96.6	99.9	103.4
	M	96.8	96.1	93.1	99.1

Attendance

	Boys		Girls	
	V N=19	CP N=49	V N=15	CP N=49
Median	8.2	3.9	7.0	5.6
Mean	9.6	5.4	10.3	6.3

* All students tested, not just longitudinal group.

TABLE A-3

CHANGES IN ATTITUDE OF MEMBERS OF THE CLASS OF 1969
FROM GRADE NINE OR TEN TO GRADE TWELVE

LONGITUDINAL GROUP, CLASS OF 1969
ANALYSIS OF COVARIANCE

Test 1, Occupational Aspiration Scale

	Vocational				College Preparatory					
	Grade	N	Mean	Adj. Mean	Grade	N	Mean	Adj. Mean	DF	F
Boys	9	6	29.5		9	29	52.3		1,32	3.832
	12	6	30.5	35.8	12	29	50.4	49.3		
Girls	10	12	32.1		10	35	47.2		1,44	3.365
	12	12	34.4	38.9	12	35	47.4	45.8		

Test 6, Index of Adjustment and Values

Test 6-1, Self

	Vocational				College Preparatory					
	Grade	N	Mean	Adj. Mean	Grade	N	Mean	Adj. Mean	DF	F
Boys	9	6	85.6		9	28	88.8		1,31	0.350
	12	6	85.3	85.8	12	28	89.5	89.4		
Girls	9	12	86.2		9	19	88.9		1,28	4.863*
	12	12	97.1	97.8	12	19	91.7	91.3		

* Significant at .05 level of confidence.

TABLE A-3 - Continued

Test 6-II, Self-Satisfaction

	Vocational				College Preparatory					
	Grade	N	Mean	Adj. Mean	Grade	N	Mean	Adj. Mean	DF	F
Boys	9	6	81.83		9	27	88.41		1,30	1.451
	12	6	86.17	88.57	12	27	95.56	95.02		
Girls	9	11	87.55		9	20	84.85		1,28	2.308
	12	11	98.45	97.99	12	20	90.10	90.35		

Test 6-III, Ideal Self

	Vocational				College Preparatory					
	Grade	N	Mean	Adj. Mean	Grade	N	Mean	Adj. Mean	DF	F
Boys	9	5	96.40		9	28	103.86		1,30	1.147
	12	5	97.80	97.78	12	28	102.00	102.00		
Girls	9	11	96.64		9	20	105.85		1,28	0.130
	12	11	102.27	102.39	12	20	103.65	103.59		

TABLE A-3 - Continued

Test 7, JIM Scale

	Vocational				College Preparatory					
	Grade	N	Mean	Adj. Mean	Grade	N	Mean	Adj. Mean	DF	F
Boys	10	11	81.0		10	38	124.2		1,46	2.815
	12	11	83.2	98.5	12	38	122.9	118.5		
Girls	10	13	103.3		10	37	126.4		1,47	1.177
	12	13	115.3	119.5	12	37	128.6	127.1		

Test 8, School Attitude Survey

Test 8-1, Attitude Toward Vocational Students

	Vocational				College Preparatory					
	Grade	N	Mean	Adj. Mean	Grade	N	Mean	Adj. Mean	DF	F
Boys	10	11	85.9		10	35	68.0		1,43	0.451
	12	11	88.2	84.2	12	35	77.8	79.1		
Girls	10	12	80.8		10	33	81.5		1,42	2.421
	12	12	97.3	97.5	12	33	90.3	90.3		

TABLE A-3 - Continued

Test 8-11, Attitude Toward College Preparatory Students

	Vocational				College Preparatory					
	Grade	N	Mean	Adj. Mean	Grade	N	Mean	Adj. Mean	DF	F
Boys	10	9	86.3		10	33	92.9		1,39	0.059
	12	9	88.0	90.1	12	33	92.1	91.5		
Girls	10	12	73.4		10	35	96.6		1,44	5.981*
	12	12	95.1	104.0	12	35	92.6	89.6		

Test 9, Vocational Development Inventory, Vocational Maturity Scale

	Vocational				College Preparatory					
	Grade	N	Mean	Adj. Mean	Grade	N	Mean	Adj. Mean	DF	F
Boys	10	11	27.5		10	42	35.9		1,50	3.391
	12	11	29.6	31.1	12	42	37.0	36.6		
Girls	10	14	35.0		10	42	36.9		1,53	0.154
	12	14	38.2	38.6	12	42	38.2	38.1		

* Significant at .05 level of confidence.

TABLE A-4

ANALYSIS OF TEST SCORES BY DIRECTION OF CHANGE IN SCORES
FROM GRADE NINE OR TEN TO GRADE TWELVE

LONGITUDINAL GROUP-CLASS OF 1969, CHI SQUARE

Test 1, Occupational Aspiration Scale

	Boys 9-12 Number of Scores		Girls 9-12 Number of Scores	
	V	CP	V	CP
Up	4	18	-	-
Down	3	16	-	-
X^2	0.14			

	Boys 9-12 + 10-12 Number of Scores		Girls 10-12 Number of Scores	
	V	CP	V	CP
Up	6	21	8	15
Down	6	19	5	16
X^2	0.02		0.63	

Test 6, Index of Adjustment and Values

Test 6-1, Self

	Boys 9-12 Number of Scores		Girls 9-12 Number of Scores	
	V	CP	V	CP
Up	6	21	10	10
Down	1	9	1	8
X^2	0.02		2.50	

TABLE A-4 - Continued

Test 6-I, Self, continued

	Boys 9-12 + 10-12 Number of Scores V	CP	Girls 9-12 + 10-12 Number of Scores V	CP
Up	9	27	12	19
Down	2	14	2	22
x^2	0.59		5.07*	

Test 6-II, Self-Satisfaction

	Boys 9-12 Number of Scores V	CP	Girls 9-12 Number of Scores V	CP
Up	5	21	9	2
Down	2	10	13	8
x^2	0.02		0.56	

	Boys 9-12 + 10-12 Number of Scores V	CP	Girls 9-12 + 10-12 Number of Scores V	CP
Up	7	27	12	26
Down	4	14	2	18
x^2	0.24		3.34	

Test 6-III, Ideal Self

	Boys 9-12 Number of Scores V	CP	Girls 9-12 Number of Scores V	CP
Up	5	18	8	9
Down	2	12	1	11
x^2	0.01		3.28	

* Significant at the .05 level of confidence.

TABLE A-4 - Continued

Test 6-III, Ideal Self, continued

	Boys 9-12 + 10-12 Number of Scores		Girls 9-12 + 10-12 Number of Scores	
	V	CP	V	CP
Up	8	20	8	16
Down	3	21	2	24
X^2	1.15		3.65	

Test 7, JIM Scale

	Boys 10-12 Number of Scores		Girls 10-12 Number of Scores	
	V	CP	V	CP
Up	6	20	7	20
Down	4	17	3	16
X^2	0.00		0.20	

Test 8, School Attitude Survey

Test 8-1, Attitude Toward Vocational Students

	Boys 10-12 Number of Scores		Girls 10-12 Number of Scores	
	V	CP	V	CP
Up	4	28	10	21
Down	5	10	3	11
X^2	4.36*		0.14	

* Significant at .05 level of confidence.

TABLE A-4 - Continued

Test 8-11, Attitude Toward College Preparatory Students

	Boys 10-12 Number of Scores		Girls 10-12 Number of Scores	
	V	CP	V	CP
Up	6	18	14	14
Down	3	19	2	20
x^2	0.35		6.09*	

Test 9, Vocational Development Inventory, Vocational Maturity Scale

	Boys 10-12 Number of Scores		Girls 10-12 Number of Scores	
	V	CP	V	CP
Up	6	26	11	23
Down	5	10	2	13
x^2	2.16		0.05	

*Significant at the .05 level of confidence.

TABLE A-5

A COMPARISON OF CHANGES IN ATTITUDES OF STUDENTS ON TEST 8
SCHOOL ATTITUDE SURVEY, FROM GRADE TEN TO TWELVE

LONGITUDINAL GROUP, CLASS OF 1969, t TEST

Test 8, School Attitude Survey

Test 8-1, Attitude Toward Students in the Vocational Program

	Boys				Girls			
	V N=11		CP N=33		V N=12		CP N=33	
Grade	10	12	10	12	10	12	10	12
Mean	85.9	88.3	68.1	77.9	80.8	97.3	81.5	90.4
S.D.	16.3	15.3	20.1	13.2	13.6	11.7	14.2	15.2
t	0.33		3.15**		3.04**		3.09**	
F	1.13				1.37			

Test 8-11, Attitude Toward Students in the College Preparatory Program

	Boys				Girls			
	V N=9		CP N=32		V N=12		CP N=35	
Grade	10	12	10	12	10	12	10	12
Mean	86.3	88.0	92.9	92.2	73.4	95.2	96.6	92.7
S.D.	18.0	15.6	10.2	15.0	13.6	15.7	9.7	13.0
t	0.22		0.43		3.51**		1.77	
F	1.33				1.33			

** Significant at .01 level of confidence.

TABLE A-6

CHANGES IN ATTENDANCE

LONGITUDINAL GROUP, CLASS OF 1969

GRADES NINE AND TWELVE

Days Absent

	Boys				Girls			
	V N=19		CP N=49		V N=15		CP N=49	
Grade	9	12	9	12	9	12	9	12
Median	8.2	14.0	3.9	7.6	7.0	16.0	5.6	10.6
Mean	9.6	19.9	5.4	11.7	10.3	17.6	6.3	12.3

Number of Students Whose Days Absent Increased or Decreased from Grade Nine to Grade Twelve

	Boys		Girls	
	V	CP	V	CP
Increased	14	33	11	34
Decreased	4	9	4	13
X^2	0.0002		0.005	

TABLE A-7

MISCELLANEOUS STATISTICS

LONGITUDINAL GROUP, CLASS OF 1969

155 students were in the class in 1965-66*

32 students transferred from Hudson to other schools over the four years.

61 students transferred from other schools to Hudson.

130 students who began at Hudson in the ninth grade will graduate from Hudson **

10 students from this class dropped out of school over the four years.

71 different students took at least one vocational course over the four years.

48 different students took all vocational courses for at least one year.

39 students took only vocational courses while in attendance.

22 students who were primarily college preparatory took at least one vocational course.

11 students who were primarily vocational for four years took at least one college preparatory course.

36 students took at least one course in both the vocational and college preparatory curricula.

19 students took only vocational courses for four years.

---

* Some students transferred out of the school during the first year.

** Some of these students were not at Hudson all four years but left and returned.

TABLE A-8

CHANGES IN SCORES OF EIGHTH GRADE STUDENTS
ON ETS GUIDANCE INQUIRY TEST

1967-68 School Year

	Boys N=96		Girls N=92	
	Before	After	Before	After
Mean	15.3	17.0	16.2	17.8
S.D.	3.3	4.1	3.9	3.9
t	5.08**		4.20**	

1968-69 School Year

	Boys N=119		Girls N=115	
	Before	After	Before	After
Mean	----	15.9	16.3	18.5
S.D.	____	4.9	3.8	3.8
t			5.51**	

** Significant at the .01 level of confidence.

TABLE A-9

A COMPARISON OF THE ATTITUDES OF STUDENTS ENTERING
THE NINTH GRADE FOR FOUR YEARS

ANALYSIS OF VARIANCE, GRADE NINE BY YEAR

Test 1, Occupational Aspiration Scale

Year	Boys N	M	S.D.	DF	F	Girls N	M	S.D.	DF	F
65-66	93	46.0	11.9	3,40	1.96	---	----	---	----	----
66-67	92	45.2	12.9			102	41.4	9.8	2,29	0.03
67-68	108	43.2	12.3			94	41.3	9.8		
68-69	110	47.1	11.2			100	41.6	11.7		

Test 9, Vocational Development Inventory, Vocational Maturity Scale

Year	Boys N	M	S.D.	DF	F	Girls N	M	S.D.	DF	F
66-67	87	34.2	5.1	2,30	0.88	87	35.0	4.4	2.27	0.09
67-68	105	33.2	4.9			89	35.1	4.2		
68-69	106	33.1	8.6			99	35.3	6.2		

TABLE A-10

TEST SCORES OF STUDENTS IN CASE STUDIES

Student	Grade	Iowa Tests of Educational Development Percentiles: Background Social Studies	Background Natural Science	Correctness of Expression	Quantative Thinking	Reading Social Studies	Reading Natural Science	Reading Literature	Reading Average	General Vocabulary	Composite	IQ, Kuhlman-Anderson Mental Ability Test
A	11	37	2	14	47	24	15	14	16	38	19	102
B	11	65	41	23	18	2	39	10	11	57	29	108
C	11	18	27	47	35	35	8	39	22	24	24	100
D	11	70	89	8	80	60	60	71	67	86	69	119
E	11	6	6	23	23	18	15	5	7	10	9	84
F	11	31	27	6	29	24	6	10	7	29	15	98

TABLE A-10 - Continued

Student	Grade	Test 1 Occupational Aspiration Scale	Test 6-I Index of Adjustment & Values Self	Test 6-II Index of Adjustment & Values Self-Satisfaction	Test 6-III Index of Adjustment & Values Ideal Self	Test 7 JIM Scale	Test 8-I School Attitude Survey: Vocational Students	Test 8-II School Attitude Survey: College Prep Students	Test 9 Vocational Maturity
		Attitude Tests Raw Scores							
A	9	13	63	37	110	---	---	---	--
	10	--	--	--	---	88	74	74	23
	12	16	67	62	106	88	93	78	34
B	9	34	102	102	108	---	---	---	--
	10	--	--	--	---	64	82	110	37
	12	51	91	95	102	110	99	93	41
C	9	29	95	90	96	---	---	---	--
	10	--	--	--	---	110	95	85	39
	12	39	101	110	111	72	111	109	43
D	9	50	86	96	106	---	---	---	--
	10	--	--	--	---	89	74	74	31
	12	43	80	85	81	42	91	81	32
E	9	--	91	89	96	---	---	---	--
	10	40	--	--	---	98	81	62	48
	12	27	97	102	107	120	100	74	42
F	10	30	72	87	103	24	103	82	35
	12	35	102	97	110	39	96	93	23

TABLE A-10 - Continued

Student	General Aptitude Test Battery Standard Scores								
	Intelligence (G)	Verbal (V)	Numerical (N)	Spatial (S)	Form Perception (P)	Clerical Perception (Q)	Motor Coordination (K)	Finger Dexterity (F)	Manual Dexterity (M)
A	97	90	89	94	87	91	---	117	112
B	89	94	109	71	93	124	78	92	104
C	98	92	93	107	91	112	103	115	112
D	109	100	96	147	121	98	126	107	105
E	--	--	--	---	---	---	---	---	---
F	88	84	82	104	106	100	97	114	115

APPENDIX D

Occupational Aspiration Scale
Test 1, Boys

This questionnaire was adapted from: Haller, Archie O., Occupational Aspiration Scale, Technical Bulletin 288, Michigan State University, 1963.

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Occupational Aspiration Scale
Test 1, Girls

This questionnaire was adapted from: Haller, Archie O., Occupational Aspiration Scale, Technical Bulletin 288, Michigan State University, 1963.

Index of Adjustment and Values
Robert E. Bills
Test 6

This questionnaire was adapted from: Robert E. Bills, Index of Adjustment and Values, Robert E. Bills, Dean, College of Education, University of Alabama, Alabama

JIM Scale, Student Questionnaire
Jack R. Frymier
Test 7

This questionnaire was reprinted from JIM Scale: Student Questionnaire, by Jack R. Frymier by permission of Jack R. Frymier, 215 Arps Hall, Ohio State University, Columbus, Ohio 43210, Copyrighted 1965.

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School Attitude Survey
Part I, Students
Test 8

This questionnaire was adapted from Index of Adjustment and Values, Robert E. Bills, Dean, College of Education, University of Alabama, Alabama

Vocational Development Inventory
John O. Crites
Test 9

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Guidance Test - H G U
ETS Guidance Inquiry

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1537 Lafayette Dr.
Columbus, Ohio 43221
March 27, 1968

Dr. Robert Bills
Dean, College of Education
University of Alabama
University, Alabama

Dear Dr. Bills:

I am using your Index of Adjustment and Values in a government sponsored research project and in my doctoral dissertation which will include some of the data from the government research. I would like to use direct quotes from your Index of Adjustment and Values: Manuals in my dissertation and in the final government research report.

In addition, I would also like to display copies of the Index of Adjustment and Values which I have modified slightly for use with a machine scoring answer sheet. Your written permission for using these materials in this manner would be greatly appreciated.

Sincerely yours,

John R. Cochran

John R. Cochran

The following is Dr. Bills' response to the above letter:

> "Please feel free to do all of the above, with appropriate credits, of course."
>
> R. A. B.

April 1, 1968

Mr. John R. Cochran
1537 Lafayette Dr.
Columbus, Ohio 43221

Dear Mr. Cochran:

This is in answer to your letter expressing interest in Archibald O. Haller and Irwin W. Miller, The Occupational Aspiration Scale: Theory, Structure and Correlates: East Lansing, Michigan: Michigan State University Agric. Exper. Sta., Tech. Bull. 288, 1963; 2nd Printing: Department of Rural Sociology, University of Wisconsin (Madison) 1967.

You have my permission to employ the OAS in your study. You may duplicate all or part of this bulletin. However, please let me know how many copies you run off and give exact citation.

I would appreciate receiving a copy of your study when it is completed.

Sincerely yours,

Archibald O. Haller
Professor

AOH:js

April 4, 1968

Mr. John R. Cochran
1537 Lafayette Drive
Columbus, Ohio 43221

Dear Mr. Cochran:

This letter will serve to grant permission to quote from my unpublished studies pertaining to the JIM Scale and to reproduce copies of the instrument in your research report.

I would be interested in seeing any materials along that line, if you have extra copies or an abstract of your report.

Sincerely,

Jack R. Frymier, Chairman
Curriculum Faculty

kk

1537 Lafayette Dr.
Columbus, Ohio 43221
May 12, 1969

Dr. John O. Crites
University Counseling Center
University of Iowa
Iowa City, Iowa 52240

Dear Dr. Crites:

We have been using the Vocational Maturity Scale for three years for the evaluation of an experimental vocational education program. We are in the process of writing our final report for the U. S. Office of Education and would appreciate your permission to reproduce a copy of the Vocational Maturity Scale in the appendix of the report.

Since we are close to our deadline, your prompt reply would be appreciated.

Sincerely,

Jack Cochran

Dr. John R. Cochran

The following is Dr. Crites' response which was written below the above letter:

Dr. Cochran:

I am most happy to give you permission to reproduce the VM Scale in your report, and I would appreciate your sending me a copy of the report when you have finished it.

Sincerely yours,

John O. Crites

John O. Crites

APPENDIX E

FOLLOW UP STUDY
OF GRADUATES OF HUDSON HIGH SCHOOL
CLASSES 1965 THROUGH 1969

FOLLOW-UP STUDY
HUDSON HIGH SCHOOL
HUDSON, OHIO
GRADUATES OF CLASSES 1965 THROUGH 1969

Name _____ _____ _____ _____
(last) (first) (middle) (maiden)

Present Address _____ Phone: _____
(street) (city) (State) (zip)

Below give the name and address of someone who will always know how to contact you.

_____ _____
(name) (street) (city) (state) (zip)

Year of H.S. Graduation _____

Major(s): _____

_____

Curriculum in each grade. (Write in curriculum after each grade listed.)

C.P. for college prep
Voc. for vocational
Gen. for general
Mix. for mixed
N.D. for New Dimensions

9 _____
10 _____
11 _____
12 _____

1. Marital Status:
   ____ Single
   ____ Married
   ____ Widow or Widower
   ____ Divorced or Separated
   ____ Remarried

2. What were your post-graduation plans while still a senior in high school? (Check no more than two (2).)

   a. ____ To get a full-time job immediately.
   b. ____ To go to college.
   c. ____ To attend business or vocational school.
   d. ____ To get married within a year.
   e. ____ To enter the Armed Services.
   f. ____ No definite plans.
   g. ____ Other : _____

3. What did you do during the first year following your graduation from high school? (Check no more than three (3).)

   a. ____ Was steadily employed full-time for more than six months.

b. ____ Was unemployed for more than six months.
c. ____ Attended college for a school year.
d. ____ Started college, but dropped out before end of school year.
e. ____ Got married.
f. ____ Entered Armed Services.
g. ____ Attended business or vocational school.
h. ____ Other: _____

4. What are you now doing? (Check no more than two (2).)

a. ____ Employed full-time.
b. ____ Employed part-time.
c. ____ Doing housework at home.
d. ____ Full-time student.
e. ____ Part-time student.
f. ____ Unemployed, seeking work.
g. ____ Unemployed, not seeking work.
h. ____ In the Armed Services.
i. ____ Other: _____

5. Education: Please check all types of education obtained since high school. Mark + in Column I box for any training being taken now. If you have taken no training since high school, place check here ☐.

Column I	Type of Education	College or School	Major Subject	Degree or Certificate
☐ 1	Two yr. college			
☐ 2	Four year college			
☐ 3	Graduate School			
☐ 4	Other Education _____			
☐ 5	Military Service	Dates	Rank	
	Where?			

6. If you are still in college or in other training, what work do you plan to enter upon graduation? _____

_____

7. Jobs - List in order in which you have held them.

Sample:

JOB TITLE	COMPANY	PART-TIME	FULL-TIME	YEARS
Offset Press Operator	Jones Printing Company		X	1966-1967

8. How did you get your first full-time job after leaving high school? (Mark all that apply.)

a. ____ By answering a want-ad.
b. ____ Private employment agency.
c. ____ State employment agency.
d. ____ Help of teacher
e. ____ Help of school counselor.
f. ____ Help of school vocational service.
g. ____ College Placement.
h. ____ Help of friend or relative.
i. ____ Through school co-op program. (D.C.T.)
j. ____ Other than above. Specify below:

_____

9. For the skills listed below, check the appropriate boxes.

	Important on Present Job	Learned in School	Learned Elsewhere
a. Manual job skills (operating machines and using tools.	☐	☐	☐
b. General knowledge of work.	☐	☐	☐

	Important on Present Job	Learned in School	Learned Elsewhere
c. Mathematical skills.	☐	☐	☐
d. Ability to communicate ideas (written and spoken.)	☐	☐	☐
e. Reading skill (printed matter, diagrams, blueprints).	☐	☐	☐
f. Getting along with people (co-workers, customers, etc.)	☐	☐	☐
g. Supervising other people (teaching, planning, etc.).	☐	☐	☐
h. Other skills (not covered above).	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐

10. Check the appropriate boxes:

My high school training in the following subjects was:

	Good	Average	Poor	Number of Courses Taken Beyond High School in this Subject
English	☐	☐	☐	☐
Mathematics	☐	☐	☐	☐
Social Sciences	☐	☐	☐	☐
Natural Sciences	☐	☐	☐	☐
Foreign Languages				
French	☐	☐	☐	☐
German	☐	☐	☐	☐

	Good	Average	Poor	Number of Courses Taken Beyond High School in This Subject
Spanish	☐	☐	☐	☐
Latin	☐	☐	☐	☐
Vocational Subjects	☐	☐	☐	☐
Business Courses	☐	☐	☐	☐
How do you rate your high school preparation for college?	☐	☐	☐	
How do you rate high school preparation for full-time employment?	☐	☐	☐	

11. How do you rate the following:

	Excellent	Satisfactory	Poor
a. Counseling given to students in high school?			
Vocational	☐	☐	☐
College	☐	☐	☐
Personal	☐	☐	☐
b. Opportunity for extra-curricular activities.	☐	☐	☐
c. Handling of discipline in school by:			
Administrators	☐	☐	☐
Teachers	☐	☐	☐

12. If you are working, how satisfied are you with your job?

a. ____ Well satisfied.
b. ____ Like it, but hope to get something better.
c. ____ Dissatisfied.

13. Number (using 1, 2, 3 in order of importance) what problems you have found in your work.

a. ____ None.
b. ____ Job not highly regarded.
c. ____ Poor working conditions.
d. ____ Hard to get along with boss or fellow-employees.
e. ____ Inadequate wages.
f. ____ Unfavorable hours.
g. ____ No chance for advancement.
h. ____ Boring, monotonous.

14. For your present or most recent full-time job, indicate your annual income.

a. ____ $1000. to $3000.
b. ____ $3000. to $6000.
c. ____ $6000. to $10,000.
d. ____ Over $10,000.

15. Recollections of Hudson High School:

a. Subjects that helped the most toward future goals: _____

_____

b. Other influences from Hudson High School: _____

_____

_____

_____

_____

c. Any areas that could be improved? _____

_____

_____

_____

d. Did total high school training give proper adequate background for present status?

_____

e. Could you have used more independence during your senior year?

_____

16. If you were in the Vocational Program mark any of the following which apply:

a. ____ I finished school instead of dropping out as I had planned.
b. ____ I enjoyed school for the first time.
c. ____ I got more from school than before.
d. ____ It helped me get a job.
e. ____ The grade card helped me understand myself better.
f. ____ I didn't learn as much as I would have in another program.
g. ____ Being in the Vocational Program made no difference.
h. ____ Other (be specific). _____

_____

_____

i. ____ Suggestions for improvements in the Vocational Program:

_____

_____

_____

IF YOU DO NOT HAVE A FULL-TIME JOB YET, MARK HERE [ ], AND OMIT NUMBER 17.

17. Was your first full-time job in the trade or field for which you were trained in high school? _____

If "Yes" - indicate how well your vocational course prepared you for your <u>first full-time</u> job.

a. ____ Exceptionally well prepared; training covered all essentials required by first job.
b. ____ Well prepared on the whole; but there were some important gaps in training.
c. ____ Poorly prepared; much that I needed to know was not covered in vocational course.

If "No" - mark reason below.

a. ____ No job available in area of training.
b. ____ Learned new job by continuing school.
c. ____ Learned new job in military service.
d. ____ Decided I liked other work better.
e. ____ Not accepted as apprentice in trade.
f. ____ Other. (Specify): _____

18. If you are, or have been, enrolled in college, answer the following questions:

a. Estimate your general grade average:

1. ____A
2. ____A-B
3. ____B
4. ____B-C
5. ____C
6. ____C-D
7. ____D
8. ____D-F

b. Indicate the college or other educational problems that are, or have been, particularly disturbing to you. (Check no more than three (3) in order of importance, using "1", "2", or "3".).

1. ____ Financial difficulty.
2. ____ Lack of preparation in high school.
3. ____ Poor choice of courses.
4. ____ Relationship with teacher(s).
5. ____ Courses too difficult.
6. ____ Inadequate social relationships.
7. ____ Poor study habits.
8. ____ Personal emotional problems intensified by a college situation.
9. ____ Lack of self-discipline.
10. ____ Other - _____
11. ____ None.

19. Answer the following questions if you were enrolled in any <u>GENERAL</u>, <u>VOCATIONAL</u>, <u>HOME ECONOMICS</u>, or <u>INDUSTRIAL ARTS</u> courses in high school.

a. Did your school offer the vocational course you really wanted to take?

1. ____ Yes. 2. ____ No.

If "No", what course did you want to take that was not offered?

_____

b. How long after leaving high school did it take you to get your first full-time job? _____ months.

20. What do you enjoy doing for relaxation:

<u>Example</u>: Watching professional sports.

a. _____

b. _____

c. _____

d. _____

APPENDIX E

Report of the Follow-Up Study

The experimental phase of the Hudson Vocational Program was to have ended in June of 1969. At this time the courses developed during the four year period were either absorbed into the total school curriculum or dropped. Increasing cooperation with neighboring high schools permitted Hudson to profit by some of their vocational offerings, most of which have been the cooperative (work-study) type. Hudson's Diversified Cooperative Training Course was discontinued at the beginning of the 1969-70 school year since it duplicated offerings of nearby schools.

It was decided that a Follow-Up Study of Hudson graduates would contribute to the total evaluation of the Vocational Program. This survey was conducted during 1969-70 by means of a questionnaire sent to all graduates of the classes of 1965 through 1969. This was mailed on November 15, 1969. A reminder was sent on December 15, 1969, and a second questionnaire was sent to non-respondents on March 1, 1970.

In planning the Follow-Up Study the research director set the following objectives:

1. To accumulate data on post-high school activities of graduates.

2. To determine appropriateness and adequacy of high school training as reflected in subsequent goal achievement.

3. To establish factual support for the inclusion of a job training curriculum in a small high school in a highly college oriented community.

4. To discover what skills, attitudes and characteristics have been developed in the high school setting.

Some limitations of the study were anticipated and others were shown in questionnaire answers. They are included here:

1. The survey was found to lack some desired results due to the length and inclusiveness of the instrument. It was planned to include the five year range of graduates from the most academically minded to the most vocationally oriented. In many cases respondees skipped or avoided pertinent questions, making it difficult to reach meaningful conclusions.

2. The desired response was not possible due to lack of interest in detailed questionnaires on the part of the vocationally oriented, and pressure of academic work among college students.

3. The results were affected by the types of people who responded fully to the questionnaire. Those who are successful in college,

vocational training or work are more inclined to respond than those who have had less success.

4. The trend of the new liberalism in many youth, which is apparent in our total society, manifests itself in individualism and a distrust or negativism toward any structured establishment. This is reflected repeatedly in the subjective comments and letters returned with the questionnaires.

5. Attitudes toward the Vocational Program changed with time. The class of 1965 knew it only in its planning stages, and their comments reflect positive reactions to a much needed addition to the high school curriculum. The classes of 1966 and 1967 reflect some of the halo effect of the innovations, but also requests for more offerings, availability of the skill areas to college preparatory students and continued effort toward erasing the divisions between student groups.

   It is interesting to note that the administration sensed these needs and began the cooperative exchange program with nearby schools and included time for New Dimensions (an interdisciplinary program available to seniors) to experiment in the skill areas in 1967.

   In spite of these things, and of less specific criticism of the Vocational Program, the division between the college preparatory and vocational students is increasingly evident in the comments of the two most recent graduating classes.

6. Certain items in the study (i.e. 10, 11, 15, 20 and 21) have value to the administration of Hudson schools in suggesting improvements in course offerings and student services, but do not need to be tabulated for this study. As a final service of research, pertinent information on graduates will be compiled for future use. The tables at the end of this Appendix show those results of the study which can be grouped numerically.

Other information from the items drawing more subjective answers will be discussed here, and some conclusions drawn which may be helpful to other schools.

Items 6 and 7 revealed a tremendous variety of interesting jobs or professions presently held or for which the student is training. For clarity, each class will be discussed briefly as to types and frequency of jobs, and some interesting professions chosen by graduates.

1965

This class is outstanding for the number of its college oriented students who helped finance their education by part-time jobs. Of the fifty-one respondents going to college, twenty-five indicated some work (food service, library, clerical, outdoor work) performed during the school year. Of the college graduates of this class, seven are continuing their education in Architecture, Medicine and Nursing, Psychology and Sociology. Of those already employed, nine are teaching in public schools, one is a Vocational Rehabilitation Counselor, one is in the Peace Corps in Malaysia and will return to teaching here. Others are in a variety of industrial training positions, computer programming and art related work. One graduate is a missionary.

Of the respondents who went directly to work from high school, the majority of the boys are in local industrial production jobs, and the girls in clerical or food services jobs. Only one answer indicates an apprenticeship. These facts on the class preceding the introduction of the vocational curriculum, will prove interesting when compared to the wider range of skills reflected in succeeding non-college preparatory graduates.

The methods of getting a first job questioned in item #8 show some changes through the years. This question might have brought a more meaningful response if it had not specified a "full-time job". The greatest assistance for all classes was from friend or relative and the least from school counselor. The school did not have a vocational service or cooperative program during the 1965-66 year.

Item #9 concerning the place of learning certain important skills proved ambiguous to some people. A number of students felt it applied only to vocational or general students and did not answer it. Those who did, considered the ability to communicate ideas and getting along with other people of top priority. The first was well learned in school, but the second received the majority of marks for "learned elsewhere".

Item #13 on the problems in work produced an interesting pattern. Using a weighted choice count, these were the results:

No problems received seventy-one points, and the other seven problem categories a total of forty-seven points.

To those who know this particular class, the lack of problems in their college and work experiences is easy to understand. It was an unusually mature and well adjusted group. As succeeding classes are observed on this same item, some change in satisfaction is seen. The researchers feel that some of this increase in problems is the nature of our times and reflects a wide spread change in attitudes and expectations.

Item #14 concerning salaries proved unproductive and the results are not complete enough to tabulate.

The subjective comments on sections of Item #15 have much value for the Hudson schools, but a few of them should be noted as reflections of student trends. Many students speak of the need for better transition from high school to college, especially in learning to use independent study skills, in expressing oneself well in speech and writing. Many comments from this class, knowing of the innovations since their graduation, reflect their wish that they could have enjoyed the vocational offerings and New Dimensions.

Item # 19, like #13, reflects a change in what students find to be disturbing problems in their post-high school education. Two items stand out through all five classes as the most serious obstacles. Poor study habits and lack of self-discipline have the highest ratings, with financial difficulty as the third in importance.

1966

This was the first of the surveyed classes to experience the Vocational Program in operation. There was a good response from students who were in the Vocational Program, and a positive evaluation of the courses they took. Of the vocational students responding, twenty-one felt that their business and vocational training was good, and only two felt it had not helped them. Suggestions in Item #16 stressed the need for more variety of choices, more counseling on types of jobs available and information on apprenticeship programs. Looking back on the Work Experience Program, several asked for a closer relationship between school training and the actual world of work. Evident in comments from both college preparatory and vocational respondents was concern over social divisions in the student body.

More of this group (twelve as compared with nine of the 1965 class) pursued non-college training beyond high school, most of them in trade areas begun in twelfth grade. The variety of jobs, career choices and colleges is wide, although teaching, engineering and health oriented professions lead the preferences. This class reports most jobs attained on own initiative and through friends and relatives.

A majority (92 points) had no job problems. Inadequate wages (43 points) was the only factor rated a real problem. Of all respondents working - twenty-four were well satisfied, fourteen hoped for something better, and one was dissatisfied.

Item #18, dealing with college or other educational problems, points to poor study habits and lack of self discipline outweighted all other

causes of disturbance, although personal emotional problems show a slight increase, as does financial difficulty.

There is approval of the vocational concept from this class, although some comments reflect a concern that students consider it the easy way out, and may, in the words of one vocational graduate, hold back those who are serious in their pursuit of skill training. She felt, with many others, that higher status for job training and stronger discipline would improve the program's image.

1967

Twenty-two responses from vocational and mixed program graduates include twelve who continued in some form of training beyond high school. Twenty-one of these are employed full time, although ten who took trade training in high school have moved to other types of work. Those who gave reasons for this change found other work they liked better, or no job available in their field of training.

As in previous classes, friends and relatives gave more help in securing jobs than other agents, but more dissatisfactions and problems with work situations appear. Inadequate wages takes first place with 33 points, with boredom and monotony drawing 29 points.

Answers to Item #16, as to effect of the Vocational Program, have more meaning since the program had been in operation for two years. School proved more enjoyable, productive and helped in getting a job. Few responses were critical of the vocational grade card, and many praised it as an incentive to personal growth. Many vocational students commented on the personal interest shown by teachers. A number of college students wished that vocational courses could have been available to them. (This was made possible in the following year.)

There is increasing evidence of growing social consciousness in this class. An appeal for more relevant studies of current events and problems, more genuine concern for the world outside the school was expressed by many. In discussing need for more freedom, the emphasis was on intellectual exploration rather than just free time.

1968

The response to student demand for more opportunity for independent study was the New Dimensions Program for seniors. As might be expected, answers were received from a large number of these students, and all but a few of them felt this experience prepared them well for college. It is interesting that there are many more comments on the Vocational Program from members of this class than any other. A probable reason was the

exposure of the New Dimensions students to the skill training which created better knowledge and closer relationships between groups. More students were in a mixed program during the 1967-68 school year, and in retrospect they reflect the benefits of such crossing of curricular lines. Attitudes toward vocational students, instructors and the program reached a high point during that year and few negative comments appeared in the follow-up.

This class showed a trend toward smaller liberal arts colleges and a slight increase in specialized training (other than college), but no reduction of the college preparatory pressure of the Hudson community. The college majors and future plans of this class leaned toward natural sciences and sociological careers. This seems in tune with the changes emerging in society as a whole.

More apprenticeships and skilled manual occupations appear in the reported jobs of this class, and a rise in satisfaction and lack of work problems is evident. Item #16 shows a holding of at least three potential drop-outs, and increased profit and enjoyment from school.

There is an appreciable drop in approval of more senior year independence. Most felt that the New Dimensions Program offered sufficient experience in handling individual freedom. The top problems for the college students in this class were poor study habits, lack of self-discipline, financial difficulty and personal emotional problems in order of importance. The number of college students holding part-time jobs indicates at least partial help on education costs.

1969

The returns from this class were, as anticipated, the highest with seventy percent response. Of the twenty-eight vocational or mixed students responding, fourteen planned to go to work upon graduation, and twelve to take continued training. Only two of these changed plans, and an additional group of seven respondees from the college preparatory group went to work.

Again the great majority (79 percent) are in four year colleges in spite of efforts by counselors to encourage attendance at two year and specialized training schools. Although the future plans of this class are not firm in every case, newer fields of ecology, city planning, environmental research, resource management, and mass communications appear as major interests.

A high percentage of all respondees from this class hold at least a part time job. Most found no major problems, but poor wages and monotony were scored by those working to help with college costs. Vocational graduates indicated that the school program had been enjoyable and helpful in

preparing for work, but more than half had taken a first job in a field other than their area of high school training. This may indicate that employment needs are changing and school offerings should be more varied, flexible, and the skills taught transferrable.

As a group, this class was critical of the school for its isolation from reality. They felt that there should be more exposure outside the school and community, and that the curriculum should encompass more study of the concerns of today's world. This is certainly characteristic of young people everywhere, but it is exciting to see in this particular group (as reflected in Items #20 and #21) a high involvement in service and welfare activities, and a true desire to put their idealism to work.

Conclusions:

1. The Follow-Up Study has accumulated valuable data on post-high school activities of fifty-six percent of the graduates of the five classes surveyed. The comments of respondents on the positive and negative influences of their high school training will be helpful in program improvement.

2. The Vocational Program has provided a productive education for those who did not want the college preparatory curriculum. Comments from many college trained respondees suggest more availability of skill training for all students. Although the majority of Hudson students do follow the college preparatory track through four years, those who were able to take a mixed program felt it had merit, and more students should be encouraged to take advantage of work training.

3. After the introduction of the Vocational Program more students had definite post-graduate plans, and followed through on them. There was an increase of interest in non-college vocational training and apprenticeships.

4. The study did not reveal any valid pattern of where skills are developed. As noted earlier, many college oriented people skipped Item #9 as not applicable, and the types of jobs held affected the answers. The skills generally felt most important were ability to communicate ideas and getting along with other people. The first was learned mostly in school, the second elsewhere.

5. The family and individual initiative seem to be the most effective methods of securing jobs. This raises a question of the effectiveness of the job-coordination program and of counseling services. Records show that many jobs were procured through school services, although few show up on questionnaires returned.

6. Hudson does a better job preparing students for college than for future full-time employment. It should be kept in mind that a college-bound student, due to success and prestige factors established by society, will have a more positive attitude toward high school.

7. Generally, answers reflect satisfaction with jobs. This may be the comparative newness of these prople to the world of work. With successive classes there appears a slightly more critical attitude toward job conditions and wages.

8. There were many comments on the closer student-teacher relationships stimulated by the Vocational Program. The vocational graduates felt that this was a more important factor in their personal growth and potential for success, than the substance of their learning.

9. The high importance of poor study skills and lack of self-discipline as college problems should promote evaluation in all our schools. While young people are crying for self-determination and more freedom, they still recognize the need for discipline and good training in the best utilization of mental ability and time. This emerges as one of the real challenges to education.

TABLE I

NUMERICAL DISTRIBUTION OF RESPONSES

CLASS	TOTAL GRADUATES	TOTAL RESPONSES	COLLEGE PREP.	GENERAL Mixed or Voc.		COLLEGE ATTEN 4 Yr.	COLLEGE ATTEN 2 Yr.	DROPOUT	OTHER TRAINING	EMPLOYMENT Full	EMPLOYMENT Part	MILITARY	GRADUATE SCHOOL
1965	127	64	51	14		42	6	6	9	39	25	10	18
1966	156	76	51	25		42	9	11	12	40	36	9	14
1967	144	75	53	22		56	4	12	6	30	41	5	9
1968	173	106	72	34		61	5	7	11	28	57	7	--
1969	187	130	102	28		103	5	4	5	21	71	4	--

NOTE: Some respondees marked multiple choices on certain questions and others skipped items. Therefore there is not a perfect numerical balance on these tables.

TABLE 2

RELATION OF PRE-GRADUATION PLANS TO ACTUAL ACTIVITY

CLASS	TO GO TO COLLEGE		TO GO TO BUS. OR VOC.		TO WORK		*1ST JOB RELATED TO SCHL. TRAIN.		*ADEQUACY OF SCHOOL TRAINING			SATISFACTION WITH JOB		
	Pre	Post	Pre	Post	Pre	Post	Yes	No	Excellent	Average	Poor	High	Average	Dis-satisfied
1965	51	48	7	9	10	13	9	21	2	5	1	26	14	4
1966	53	51	14	12	19	21	21	22	5	15	1	24	14	1
1967	60	52	6	7	12	15	10	20	7	3	0	13	19	2
1968	81	70	6	8	15	28	18	11	12	4	2	12	14	4
1969	103	96	12	10	14	22	12	13	4	8	0	13	14	1

NOTE: Most respondees were college students or graduates, saying work preparation came from post high school training.

APPENDIX F

REVISED EVALUATION CARD

HUDSON HIGH SCHOOL — VOCATIONAL DIVISION

Name:_____ Subject:_____ Teacher:_____

Grade Level:_____ Grading Period: ☐ 1 ☐ 2 ☐ 3 ☐ 4 Year:_____

ATTITUDES AND PERSONAL PERFORMANCE SCALE

Does not apply ☐	Care of working space, tools or equipment	Very careful and neat ☐☐☐☐	Acceptable ☐☐☐☐	Needs improvement ☐☐☐☐	Unacceptable ☐☐☐☐
☐	Use of working time	Productive ☐☐☐☐	Acceptable ☐☐☐☐	Needs improvement ☐☐☐☐	Wasteful ☐☐☐☐
☐	Use of materials	Careful ☐☐☐☐	Acceptable ☐☐☐☐	Needs improvement ☐☐☐☐	Wasteful ☐☐☐☐
☐	Attitude toward co-workers	Cooperative ☐☐☐☐	Acceptable ☐☐☐☐	Needs improvement ☐☐☐☐	Unacceptable ☐☐☐☐
☐	Responsibility	Seeks & follows through ☐☐☐☐	Acceptable ☐☐☐☐	Needs improvement ☐☐☐☐	Avoids ☐☐☐☐
☐	Attitude toward teacher	Respectful, helpful ☐☐☐☐	Acceptable ☐☐☐☐	Needs improvement ☐☐☐☐	Uncooperative ☐☐☐☐
☐	Follows Instructions	Carefully ☐☐☐☐	Acceptable ☐☐☐☐	Needs improvement ☐☐☐☐	Disregards ☐☐☐☐
☐	Dress (Lab)		Acceptable ☐☐☐☐	Needs improvement ☐☐☐☐	

PERSONAL PROGRESS SCALE: position of check on grade line shows the student's present progress in relation to his abilities. It does not compare him with others.

PROFICIENCY LEVEL indicates excellent handling of manipulative skills and understanding of subject matter.

PROGRESS LEVEL indicates average achievement in learning and application of skills.

NOT PROGRESSING indicates less than adequate understanding of subject matter and technical performance.

Related or classroom			
Lab or shop			

APPENDIX G

STAFF WHO WORKED IN HUDSON VOCATIONAL PROGRAM 1965 THROUGH 1969

Administrators:

Benham, Lloyd Principal Hudson High School	1965 - 1968
Cunningham, Dr. William Superintendent Hudson Schools	1968 - Present
McDonnell, Michael Assistant Principal Hudson High School	1968 - Present
McDowell, John P. Superintendent Hudson Schools	1965 - 1968
Pace, Mrs. Mary Vocational Supervisor and Study Director	1965 - 1970
Reeves, Gerald Principal Hudson High School	1968 - Present

Research Personnel:

Cochran, Dr. John Research Assistant	1965 - 1969
Peters, Dr. Herman Research Consultant	1965 - 1969

Teaching Staff:

Adams, Russell	1965 - Present
Aeschliman, Raymond	1965 - Present
Behanna, Mrs. Mary	1965 - 1967
Cliff, Teague	1966 - Present
Criswell, Cyrus	1965 - 1966
Davis, Mrs. Martha	1968 - 1969
Derr, John	1967 - 1969
Edwards, Edwin	1965 - Present
Fawcett, Richard	1965 - 1969
Gamble, Roland	1965 - 1966
Gunning, Lyle	1965 - Present
Irish, Charles	1967 - Present
Jones, Arthur	1965 - Present
Kovach, Robert	1966 - 1968
Lietzow, Alfred	1966 - 1967
McDonnell, Mrs. Eleanor	1967 - Present
Miller, Richard	1968 - 1969
Mottice, Robert	1967 - 1968
Noice, William	1965 - 1967
O'Brien, Ralph	1965 - 1966

O'Connor, Stanley	1966 - 1967
Petrus, Robert	1967 - 1969
Pfeiffer, David	1968 - 1969
Pritchard, Mrs. Adelaide	1966 - 1969
Rosselot, George	1965 - 1968
Schroeder, Eugene	1968 - 1969
Stachel, Mrs. Grace	1968 - Present
Stofsick, Steven	1965 - Present
Stoffer, David	1968 - Present
Thompson, Mrs. Pearle	1966 - Present
Townsend, Mrs. Rose Jane	1965 - Present
Uhle, Mrs. Rebecca	1967 - 1968
Wilkens, James	1966 - 1967
Willoughby, Mrs. Judith	1965 - 1969
Winzer, Roland	1967 - 1968

Vocational Department & Research Secretary:

Davis, Mrs. Betsy	1965 - 1966
Gladden, Mrs. Donnie	1966 - Present